

02-8902-07-PA  
REV. NO. 0

**FINAL DRAFT  
PRELIMINARY ASSESSMENT  
MICROWAVE POWER DEVICES, INC.  
HAUPPAUGE, NEW YORK**

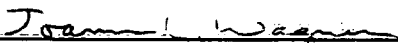
**PREPARED UNDER  
TECHNICAL DIRECTIVE DOCUMENT NO. 02-8902-07  
CONTRACT NO. 68-01-7346**


**FOR THE  
ENVIRONMENTAL SERVICES DIVISION  
U.S. ENVIRONMENTAL PROTECTION AGENCY**

**MARCH 20, 1989**

**NUS CORPORATION  
SUPERFUND DIVISION**

**SUBMITTED BY:**

  
**JOANN L. WAGNER  
PROJECT MANAGER**

  
**SUSAN ANDERSON  
SITE MANAGER**

**REVIEWED/APPROVED BY:**

  
**RONALD M. NAMAN  
FACILITY MANAGER**

333768



# POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT

## PART I: SITE INFORMATION

1. Site Name/Alias Microwave Power Devices, Inc.  
 Street 330 Oser Avenue  
 City Hauppauge State New York Zip 11787
2. County Suffolk County Code 103 Cong. Dist. 04
3. EPA ID No. NYD044470680
4. Latitude 40° 49' 02" N Longitude 73° 15' 53" W  
 USGS Quad. Greenlawn, New York
5. Owner Microwave Power Devices, Inc. Tel. No. (516) 231-1400  
 Street 330 Oser Avenue  
 City Hauppauge State New York Zip 11787
6. Operator Microwave Power Devices, Inc. Tel. No. (516) 231-1400  
 Street 330 Oser Avenue  
 City Hauppauge State New York Zip 11787
7. Type of Ownership  
☒ Private      ☐ Federal      ☐ State  
☐ County      ☐ Municipal      ☐ Unknown      ☐ Other \_\_\_\_\_
8. Owner/Operator Notification on File  
☐ RCRA 3001      Date \_\_\_\_\_      ☐ CERCLA 103c      Date \_\_\_\_\_  
☐ None      ☒ Unknown
9. Permit Information  

Permit	Permit No.	Date Issued	Expiration Date	Comments
<u>Air</u>	<u>Unknown</u>	<u>Unknown</u>	<u>Unknown</u>	<u>Indicated on 1986 NYSDEC inspection form</u>
10. Site Status  
☒ Active      ☐ Inactive      ☐ Unknown
11. Years of Operation August 1, 1979 to Present
12. Identify the types of waste units (e.g., landfill, surface impoundment, piles, stained soil, above- or below-ground tanks or containers, land treatment, etc.) on site. Initiate as many waste unit numbers as needed to identify all waste sources on site.

### (a) Waste Management Areas

Waste Unit No.	Waste Unit Type	Facility Name for Unit
1	<u>Underground Storage Tank</u>	<u>Chemical Waste Storage Tank</u>
2	<u>Drum Storage</u>	<u>Drum Storage</u>
3	<u>Aboveground Tank</u>	<u>Aboveground Tank</u>
4	<u>Underground Tank</u>	<u>Underground Tank</u>

**(b) Other Areas of Concern**

Identify any miscellaneous spills, dumping, etc. on site; describe the materials and identify their locations on site.

There are no known incidents of miscellaneous spills, dumping, etc. on site.

**13. Information available from**

Contact Amy Brochu Agency U.S. EPA Tel. No. (201) 906-6802

Preparer Susan Anderson Agency NUS Corp. Region 2 FIT Date March 20, 1989

## PART II: WASTE SOURCE INFORMATION

For each of the waste units identified in Part I, complete the following six items.

Waste Unit 1 - Underground Storage Tank Chemical Waste Storage Tank

1. Identify the RCRA status and permit history, if applicable, and the age of the waste unit.

The facility filed a notification of hazardous waste activity on November 6, 1980; wastes are accumulated in tanks or containers for less than 90 days. The chemical waste storage tank has been present on site since at least 1980; it was reported to be in the process of closure in 1986.

2. Describe the location of the waste unit and identify clearly on the site map.

The chemical waste storage tank is located outside along the east wall of the Microwave Power Devices Inc. building, 5 feet underground.

3. Identify the size or quantity of the waste unit (e.g., area or volume of a landfill or surface impoundment, number and capacity of drums or tanks). Specify the quantity of hazardous substances in the waste unit.

The capacity of the chemical waste storage tank is reported to be between 800 and 880 gallons. However, the actual quantity of hazardous substances contained in this waste unit is unknown.

4. Identify the physical state(s) of the waste type(s) as disposed of in the waste unit. The physical state(s) should be categorized as follows: solid, powder or fines, sludge, slurry, liquid, or gas.

The physical state of the waste as disposed of in the metal holding tank is reported to be liquid.

5. Identify specific hazardous substance(s) known or suspected to be present in the waste unit.

The chemical waste storage tank is reported to contain unspecified corrosive liquid.

6. Describe the containment of the waste unit as it relates to contaminant migration via groundwater, surface water, and air.

The chemical waste storage tank is reported to be in sound condition. However, the containment features associated with it are unknown.

Ref. Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11



## PART II: WASTE SOURCE INFORMATION

For each of the waste units identified in Part I, complete the following six items.

Waste Unit 2 - Drum Storage Drum Storage

1. Identify the RCRA status and permit history, if applicable, and the age of the waste unit.

The facility filed a notification of hazardous waste activity on November 6, 1980; wastes are accumulated in tanks and containers for less than 90 days. It is not known when the facility began storing wastes in drums; however, a May 1986 New York State Department of Environmental Conservation (NYSDEC) inspection report indicated the presence of drums containing hazardous waste on site.

2. Describe the location of the waste unit and identify clearly on the site map.

The location of the drums is unknown.

3. Identify the size or quantity of the waste unit (e.g., area or volume of a landfill or surface impoundment, number and capacity of drums or tanks). Specify the quantity of hazardous substances in the waste unit.

There reportedly were fifty-four 55-gallon drums on site at the time of the NYSDEC inspection in 1986.

4. Identify the physical state(s) of the waste type(s) as disposed of in the waste unit. The physical state(s) should be categorized as follows: solid, powder or fines, sludge, slurry, liquid, or gas.

The physical state of the waste as disposed of in the drums is liquid.

5. Identify specific hazardous substance(s) known or suspected to be present in the waste unit.

The specific hazardous substances reported to be present in the drums are 1,1,1-trichloroethane, Freon, ammonium persulfate, ferric chloride, acetone, ethyl alcohol, methyl alcohol, chloroform, and oil and dirt.

6. Describe the containment of the waste unit as it relates to contaminant migration via groundwater, surface water, and air.

The drums are reported to be in sound condition. However, the location of the drum storage area and the containment features associated with it are unknown.

Ref. Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

## PART II: WASTE SOURCE INFORMATION

For each of the waste units identified in Part I, complete the following six items.

Waste Unit 3 - Aboveground Tank Aboveground Tank

1. Identify the RCRA status and permit history, if applicable, and the age of the waste unit.

On a 1983 NYSDEC RCRA inspection form, it was reported that two new 1000-gallon double-wall fiberglass tanks were to be used to hold the rinse water and sludge that would be generated by a newly installed waste treatment system; however, on a 1986 New York State Industrial Hazardous Waste Management Act form, it was reported that a 1200-gallon aboveground tank contained spent solvent and a 3000-gallon underground tank contained sludge. Based on this information, it is assumed that the two 1000-gallon tanks alluded to in 1983 are actually the 1200-gallon aboveground tank and the 3000-gallon underground tank. The facility filed a notification of hazardous waste activity on November 6, 1980; wastes are accumulated in tanks or containers for less than 90 days.

2. Describe the location of the waste unit and identify clearly on the site map.

The location of the aboveground tank is unknown.

3. Identify the size or quantity of the waste unit (e.g., area or volume of a landfill or surface impoundment, number and capacity of drums or tanks). Specify the quantity of hazardous substances in the waste unit.

The capacity of the aboveground tank is reported to be 1200 gallons; however, the quantity of hazardous waste it contains is unknown.

4. Identify the physical state(s) of the waste type(s) as disposed of in the waste unit. The physical state(s) should be categorized as follows: solid, powder or fines, sludge, slurry, liquid, or gas.

The physical state of the waste as disposed of in the aboveground tank is most likely liquid.

5. Identify specific hazardous substance(s) known or suspected to be present in the waste unit.

The aboveground tank is reported to contain unspecified spent solvents.

6. Describe the containment of the waste unit as it relates to contaminant migration via groundwater, surface water, and air.

The aboveground tank is reported to be in sound condition.

Ref. Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

## PART II: WASTE SOURCE INFORMATION

For each of the waste units identified in Part I, complete the following six items.

Waste Unit 4 - Underground Tank Underground Tank

1. Identify the RCRA status and permit history, if applicable, and the age of the waste unit.

On a 1983 NYSDEC RCRA inspection form, it was reported that two new 1000-gallon double-wall fiberglass tanks were to be used to hold the rinse water and sludge that would be generated by a newly installed waste treatment system; however, on a 1986 New York State Industrial Hazardous Waste Management Act form, it was reported that a 1200-gallon aboveground tank contained spent solvents and a 3000-gallon underground tank contained sludge. Based on this information, it is assumed that the two 1000-gallon tanks alluded to in 1983 are actually the 1200-gallon aboveground tank and the 3000-gallon underground tank. The facility filed a notification of hazardous waste activity on December 20, 1980; wastes are accumulated in tanks or containers for less than 90 days.

2. Describe the location of the waste unit and identify clearly on the site map.

The location of the underground tank is unknown.

3. Identify the size or quantity of the waste unit (e.g., area or volume of a landfill or surface impoundment, number and capacity of drums or tanks). Specify the quantity of hazardous substances in the waste unit.

The capacity of the underground tank is reported to be 3000 gallons; however, the quantity of hazardous waste it contains is unknown.

4. Identify the physical state(s) of the waste type(s) as disposed of in the waste unit. The physical state(s) should be categorized as follows: solid, powder or fines, sludge, slurry, liquid, or gas.

The physical state of the waste as disposed of in the underground tank is sludge.

5. Identify specific hazardous substance(s) known or suspected to be present in the waste unit.

The underground tank is reported to contain metal hydroxide sludge.

6. Describe the containment of the waste unit as it relates to contaminant migration via groundwater, surface water, and air.

The underground tank is reported to be in sound condition.

Ref. Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

### **PART III: HAZARD ASSESSMENT**

#### **GROUNDWATER ROUTE**

1. Describe the likelihood of a release of contaminant(s) to the groundwater as follows: observed, alleged, potential, or none. Identify the contaminant(s) detected or suspected, and provide a rationale for attributing the contaminant(s) to the facility.

There is little potential for a release of contaminants to the groundwater, as the waste units are in sound condition. However, it is unknown whether there is an impermeable liner beneath any of the waste units. Any release that might occur would most likely be a result of human intervention and/or error.

Ref. Nos. 1, 2

2. Describe the aquifer of concern; include information such as depth, thickness, geologic composition, permeability, overlying strata, confining layers, interconnections, discontinuities, depth to water table, groundwater flow direction.

The aquifer of concern consists of glacial sand and gravel deposits overlying and hydraulically connected to the Magothy Formation. The Magothy is characteristically composed of fine to medium sand that is partly clayey; it may be interbedded with lenses and layers of coarse sand and sandy and solid clay. The approximate thickness of the aquifer, including the glacial deposits and the Magothy Formation, may be as much as 1,700 feet; the depth from the land surface to the top of the Magothy ranges from 0 to approximately 600 feet. The direction of groundwater flow is generally southward; the depth to the water table is approximately 80 feet.

Ref. Nos. 12, 15

3. Is a designated sole source aquifer within 3 miles of the site?  
The aquifers underlying Nassau and Suffolk Counties received sole source aquifer designation in 1978.

Ref. No. 13

4. What is the depth from the lowest point of waste disposal/storage to the highest seasonal level of the saturated zone of the aquifer of concern?

The depth of the underground chemical waste storage tank is reported to be 5 feet; however, the depth of the 3000-gallon underground tank is unknown. The depth from the ground surface to the water table of the aquifer of concern is approximately 80 feet. Therefore, the depth from the lowest point of waste storage to the highest seasonal level of the aquifer of concern is approximately 75 feet.

Ref. Nos. 1, 2, 4, 12, 15

5. What is the permeability value of the least permeable continuous intervening stratum between the ground surface and the aquifer of concern?

The unsaturated zone may consist of glacial deposits of varying permeability, including till, outwash deposits, and glaciolacustrine deposits. Site-specific permeability values are unknown; permeabilities could range from less than  $10^{-7}$  centimeters per second (cm/sec) for till to greater than  $10^{-3}$  cm/sec for outwash deposits.

Ref. Nos. 12, 14

6. What is the net annual precipitation for the area?

Net annual precipitation is approximately 13.5 inches.

Ref. No. 14

7. Identify uses of groundwater within 3 miles of the site (i.e., private drinking source, municipal source, commercial, industrial, irrigation, unusable).

Groundwater is the primary source for drinking water and all other uses throughout Suffolk County.

Ref. Nos. 13, 15

8. What is the distance to and depth of the nearest well that is currently used for drinking or irrigation purposes?

Distance Approximately 4000 feet

Depth 423 feet

Ref. Nos. 15, 16, 18

9. Identify the population served by the aquifer of concern within a 3-mile radius of the site.

The aquifer of concern is a sole source aquifer, serving at least 79,800 people within 3 miles of the site via public supply and nonmunicipal community water systems.

Ref. Nos. 13, 15, 16, 17

#### **SURFACE WATER ROUTE**

10. Describe the likelihood of a release of contaminant(s) to surface water as follows: observed, alleged, potential, or none. Identify the contaminant(s) detected or suspected, and provide a rationale for attributing the contaminants to the facility.

There is little potential for a release of contaminants to surface water because there is no migration pathway to a natural surface water body within 3 miles. Industrial and residential areas are located between the site and a pond 2 miles northeast of the site. There are numerous recharge basins located within the vicinity of the site which would intercept runoff.

Ref. No. 18

11. Identify and locate the nearest downslope surface water. If possible, include a description of possible surface drainage patterns from the site.

There are no natural surface waters located along a migration pathway. The New Millpond is located approximately 2 miles northeast of the site; however, there are no apparent migration pathways from the site to the pond. Developed areas intercept runoff between the site and the pond.

Ref. No. 18

12. What is the facility slope in percent? (Facility slope is measured from the highest point of deposited hazardous waste to the most downhill point of the waste area or to where contamination is detected.)

The facility slope as defined above cannot be calculated, as there is no documentation of on-site hazardous waste disposal or contamination. The average site slope is estimated to be less than 3 percent.

Ref. Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 19

13. What is the slope of the intervening terrain in percent? (Intervening terrain slope is measured from the most downhill point of the waste area to the probable point of entry to surface water.)

The intervening terrain slope as defined above cannot be calculated, as there is no documentation of waste disposal and no probable point of entry into surface water. The average site slope is estimated to be less than 3 percent.

Ref. Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 19

**14. What is the 1-year 24-hour rainfall?**

The 1-year 24-hour rainfall is approximately 2.7 inches.

Ref. No. 14

**15. What is the distance to the nearest downslope surface water? Measure the distance along a course that runoff can be expected to follow.**

There is no migration pathway to a natural surface water body within 3 miles.

Ref. No. 18

**16. Identify uses of surface waters within 3 miles downstream of the site (i.e., drinking, irrigation, recreation, commercial, industrial, not used).**

Adjacent to New Millpond are a county park and a country club; based on this observation, the uses of the pond are presumed to be recreational. There are no apparent migration pathways from the site to the pond. Developed areas intercept runoff between the site and the pond.

Ref. No. 18

**17. Describe any wetlands, greater than 5 acres in area, within 2 miles downstream of the site. Include whether it is a freshwater or coastal wetland.**

There are no wetlands, greater than 5 acres in area, within 2 miles of the site.

Ref. No. 18

**18. Describe any critical habitats of federally listed endangered species within 2 miles of the site along the migration path.**

There are no critical habitats of federally listed endangered species within 2 miles of the site.

Ref. No. 20

**19. What is the distance to the nearest sensitive environment along or contiguous to the migration path (if any exist within 2 miles)?**

There are no sensitive environments within 2 miles along a migration pathway.

Ref. Nos. 18, 20

**20. Identify the population served or acres of food crops irrigated by surface water intakes within 3 miles downstream of the site and the distance to the intake(s).**

Not applicable; there are no surface waters within 3 miles downstream of the site.

Ref. No. 18

**21. What is the state water quality classification of the water body of concern?**

Unknown

**22. Describe any apparent biota contamination that is attributable to the site.**

There are no known documented incidents of biota contamination that could be attributed to the site.

Ref. Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 19

#### AIR ROUTE

23. Describe the likelihood of a release of contaminant(s) to the air as follows: observed, alleged, potential, none. Identify the contaminant(s) detected or suspected, and provide a rationale for attributing the contaminant(s) to the facility.

There have been no reported incidents of a release of contaminants to the air at this site. Drums are stored on site and are reported to be in sound condition; however, the location of the drums is unknown. The chemical waste storage tank is underground and was reported to be in the process of closure in 1986. The 1200-gallon tank is above ground; however, the location is unknown. The 3000-gallon tank is located underground.

Ref. Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

24. What is the population within a 4-mile radius of the site?

The population within a 4-mile radius of the site is approximately 141,700.

Ref. No. 17

#### FIRE AND EXPLOSION

25. Describe the potential for a fire or explosion to occur with respect to the hazardous substance(s) known or suspected to be present on site. Identify the hazardous substance(s) and the method of storage or containment associated with each.

The potential for a fire or explosion to occur as a result of the hazardous substances stored on site is unknown; however, it is reported that 1,1,1-trichloroethane, Freon, ammonium persulfate, ferric chloride, acetone, ethyl alcohol, chloroform, and oil and dirt are contained in 55-gallon drums. The location of the drums is unknown. It is reported that EPA testing has shown the characteristics of the waste on site to be corrosive and ignitable. A New York State Industrial Waste Management Act form reported that the drums holding ignitable or reactive waste are located at least 50 feet from the property lines and the storage area is inspected weekly; however, the drums "were not grounded" and "No Smoking" signs were not conspicuously placed near ignitable or reactive wastes. The chemical waste storage tank is located 5 feet underground and was reported to be in the process of closure in 1986. The 1200-gallon tank is located above ground; however, the location is unknown. The 3000-gallon tank is located underground. All waste units are reported to be in sound condition.

Ref. Nos. 1, 2

26. What is the population within a 2-mile radius of the hazardous substance(s) at the facility?

The population within a 2-mile radius of the site is approximately 33,900.

Ref. No. 17

#### DIRECT CONTACT/ON-SITE EXPOSURE

27. Describe the potential for direct contact with hazardous substance(s) stored in any of the waste units on site or deposited in on-site soils. Identify the hazardous substance(s) and the accessibility of the waste unit.

There is little potential for direct contact with hazardous substances stored in the waste units on site. The unspecified corrosive liquid is contained in an underground tank, which was reported to be in the process of closure in 1986. The sludge (metal hydroxide) is contained in an underground double-wall fiberglass tank, and the unspecified waste solvents are contained in an aboveground double-wall fiberglass tank. The wastes contained in the

drums are 1,1,1-trichloroethane, Freon, ammonium persulfate, ferric chloride, acetone, ethyl alcohol, methyl alcohol, chloroform, and oil and dirt. All waste units are reported to be in sound condition.

Ref. Nos. 1, 2

28. How many residents live on a property whose boundaries encompass any part of an area contaminated by the site?

There are no known areas of contamination attributable to the site and no residences in the immediate vicinity.

Ref. Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 18, 19

29. What is the population within a 1-mile radius of the site?

The population within a 1-mile radius of the site is approximately 6,100.

Ref. No. 17



#### **PART IV: SITE SUMMARY AND RECOMMENDATIONS**

The Microwave Power Devices, Inc. Site is located in an industrial/office park area in Hauppauge, Suffolk County, New York. The site is owned by Microwave Power Devices, Inc.; operations began on August 1, 1979. The building covers 35,000 square feet, and the approximate size of the property is 235,000 square feet. The facility is a manufacturer of microwave telecommunication systems. The microwave components are cleaned, plated, and surface treated on site. The plating shop and surface treatment operations produce acid/alkali and chromate rinse waters, which are chemically treated on site. The treated rinse water is either reused or discharged into the privately owned Heartland Sewer system that serves the industrial park area.

The facility filed a notification of hazardous waste activity on November 6, 1980; wastes are accumulated in tanks or containers for less than 90 days. The site includes a chemical waste storage tank that has a reported capacity of between 800 and 880 gallons. It is located outside along the east wall of the Microwave Power Devices, Inc. building, 5 feet underground. The tank is reported to contain unspecified corrosive liquid. The location of the drum storage area is unknown. Drums have been used to store 1,1,1-trichloroethane, Freon, ammonium persulfate, ferric chloride, acetone, ethyl alcohol, methyl alcohol, and oil and dirt. On a 1983 RCRA Inspection Form, it was reported that two new 1000-gallon double-wall fiberglass tanks were to be used to hold the rinse water and sludge that would be generated by a new waste treatment system; however, on a 1986 New York State Industrial Hazardous Waste Management Act Form, it was reported that a 1200-gallon aboveground tank contained spent solvent, and a 3000-gallon underground tank contained sludge (metal hydroxide). Based on this information, it is assumed that the two 1000-gallon tanks alluded to in 1983 are actually the 1200-gallon aboveground tank and the 3000-gallon underground tank. The location of these tanks and the containment methods associated with them are unknown. However, all waste units are reported to be in sound condition. Therefore, a minimal potential for direct contact and for a release of contaminants to the environment is assumed. In the event of a contaminant release, the environmental media of greatest concern would be the underlying soils and groundwater, as the area is strictly dependent on groundwater for all water usage purposes. There are no obvious migration pathways to a natural surface water body.

There are no known enforcement actions pending against Microwave Power Devices, Inc. In 1982, a closure plan was prepared as part of the company's permit requirements; the underground chemical waste storage tank was reported to be in the process of closure in 1986. However, it is unknown whether closure of this waste unit was completed or whether closure of any of the other waste areas described in the plan was ever implemented.

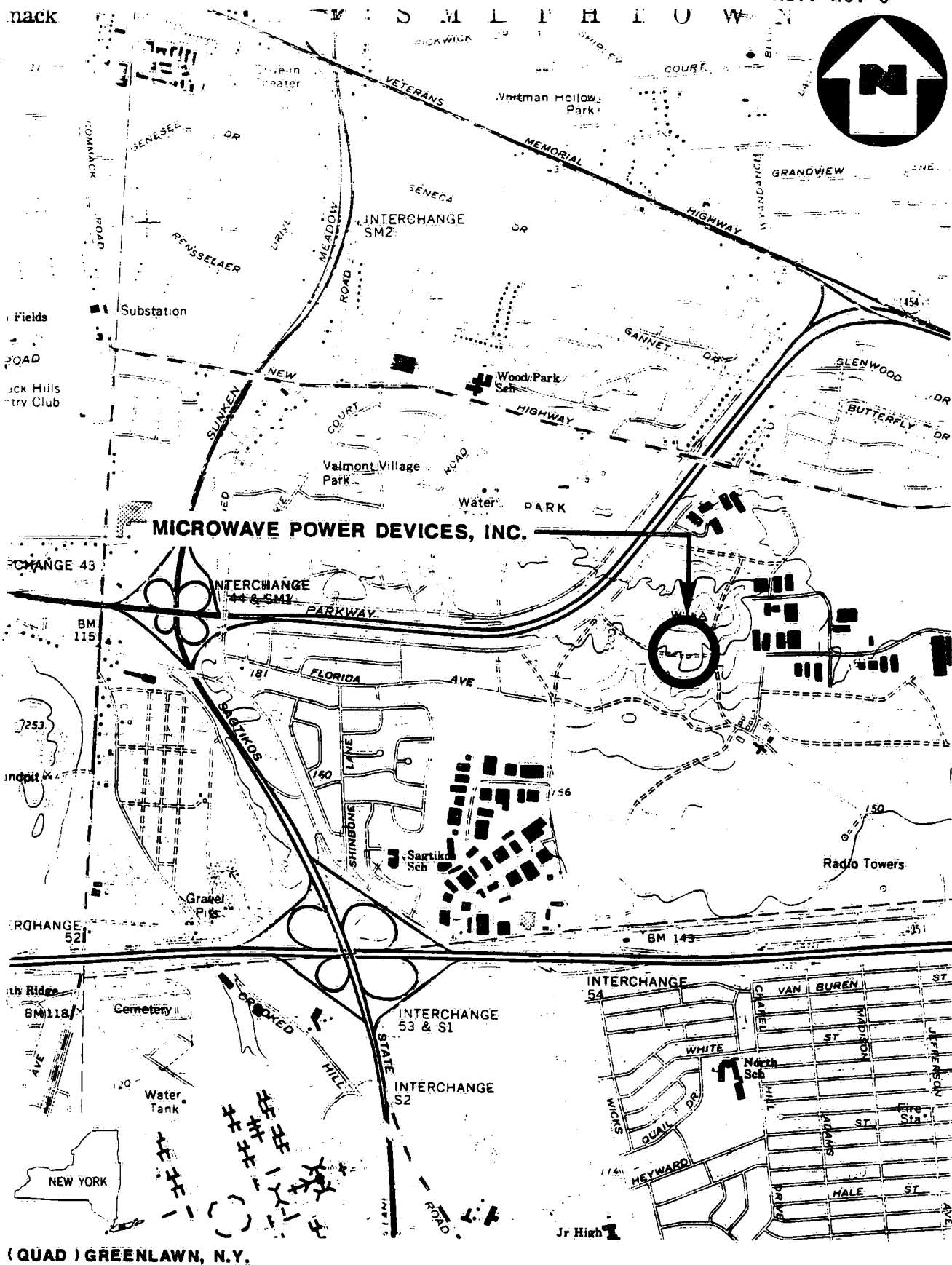
The site is given a recommendation of **NO FURTHER REMEDIAL ACTION PLANNED (NFRAP)** due to the sound condition of the waste units, the small quantity of wastes stored on site, and the lack of evidence of a release of contaminants to the environment.

**ATTACHMENT 1**

MICROWAVE POWER DEVICES , INC.  
HAUPPAUGE, NEW YORK

CONTENTS

Figure 1: Site Location Map  
Figure 2: Site Map  
Exhibit A: Photograph Log



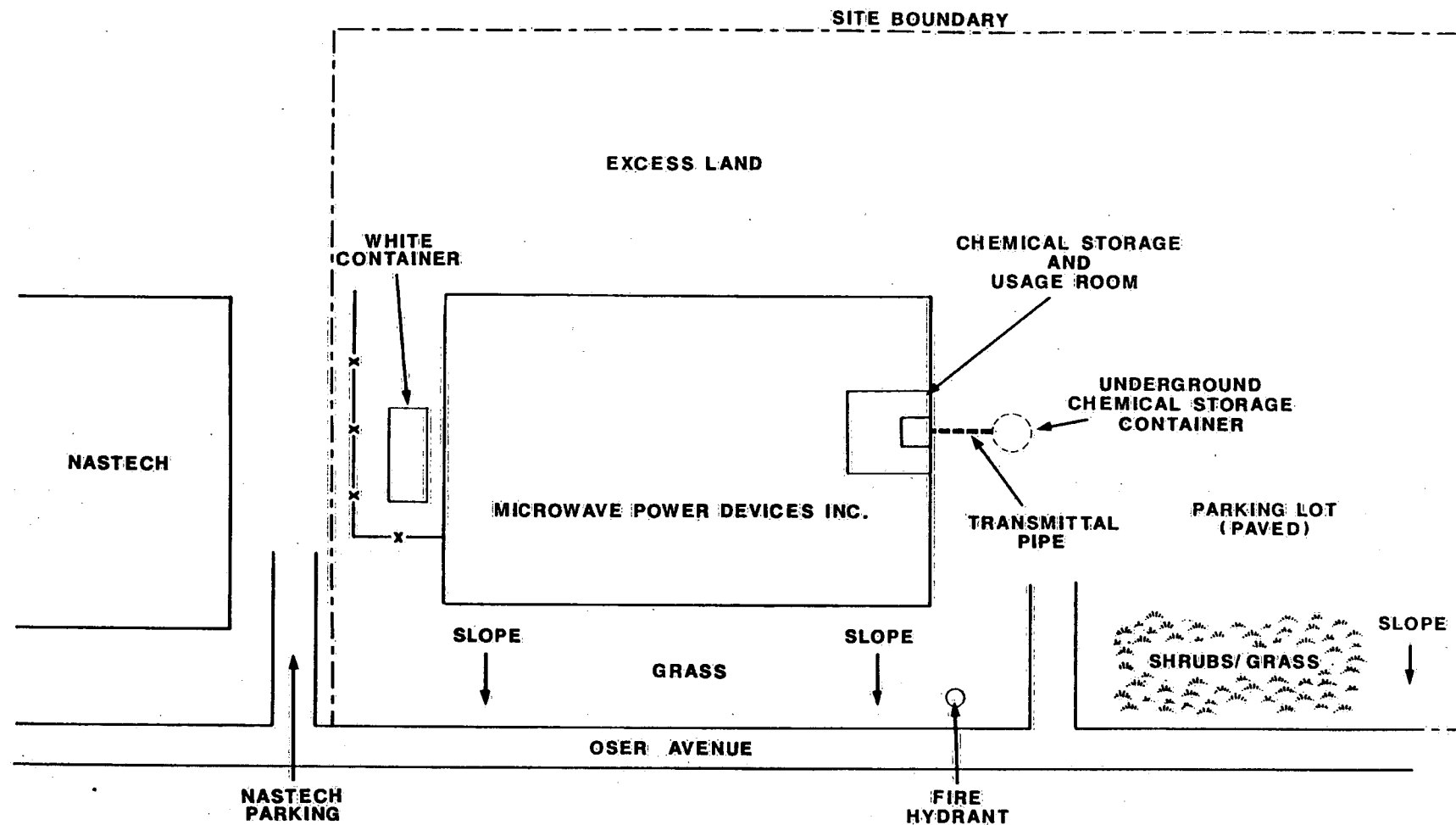
(QUAD) GREENLAWN, N.Y.

**SITE LOCATION MAP**  
**MICROWAVE POWER DEVICES, INC.,**  
**HAUPPAUGE, N.Y.**

SCALE : 1" = 2000'

**FIGURE 1**





**SITE MAP**  
**MICROWAVE POWER DEVICES INC., HAUPPAUGE, N.Y.**  
 NOT TO SCALE

EXHIBIT A

PHOTOGRAPH LOG

MICROWAVE POWER DEVICES INC.  
HAUPPAUGE, NEW YORK

OFF-SITE RECONNAISSANCE: FEBRUARY 22, 1989

MICROWAVE POWER DEVICES, INC.  
HAUPPAUGE, NEW YORK  
FEBRUARY 22, 1989

PHOTOGRAPH INDEX

<u>Photo Number</u>	<u>Description</u>	<u>Time</u>
1P-19	Looking at western side of Microwave Power Devices, Inc., showing the fenced area.	1448
1P-20	Looking at eastern side of Microwave Power Devices, Inc., and parking area.	1450
1P-21	Looking at southern side of Microwave Power Devices, Inc., showing the front entrance.	1453

Photograph 1P-19 was taken by Susan Anderson.  
Photographs 1P-20 and 1P-21 were taken by Joseph Dvorak.

MICROWAVE POWER DEVICES, INC.  
HAUPPAUGE, NEW YORK



1P-21

February 22, 1989

1453

Looking at southern side of Microwave Power Devices, Inc.,  
showing the front entrance.



MICROWAVE POWER DEVICES, INC.  
HAUPPAUGE, NEW YORK



1P-19

February 22, 1989

1448

Looking at western side of Microwave Power Devices, Inc.,  
showing the fenced area.



1P-20

February 22, 1989

1450

Looking at eastern side of Microwave Power Devices, Inc., and  
parking area.

**ATTACHMENT 2**

## REFERENCES

1. RCRA Inspection Form, Prepared by August LaRuffa of New York State Department of Environmental Conservation, September 16, 1983.
2. New York Industrial Hazardous Waste Management Act Inspection Report, Prepared by Tanya Hermos of New York State Department of Environmental Conservation, July 3, 1986.
3. Applications for Approval to Construct and Operate Solid Waste Management Facility, June 8, 1982 and April 9, 1980.
4. Site Maps of Microwave Power Devices Inc., March 3, 1980.
5. New York State Department of Environmental Conservation, Project Permit Requirement Questionnaire for Microwave Power Devices Inc., March 3, 1980.
6. U.S. Environmental Protection Agency, Acknowledgement of Notification of Hazardous Waste Activity, EPA Form 8700-12B(4-80), December 22, 1980.
7. U.S. Environmental Protection Agency, Notification of Hazardous Waste Activity, EPA Form 8700-12(6-80) November 6, 1980.
8. U.S. Environmental Protection Agency, General Information, Consolidated Permits Program, EPA Form 3510-1(6-80), June 16, 1981, and Hazardous Waste Permit Application, EPA Form 3510-3(6-80).
9. Memo from J. Josephs, Solid Waste Branch, concerning Hazardous Waste Permit Application, EPA Form 3510-1(6-80), December 16, 1981.
10. Letter from Linda Ginsburg, Donnelly Engineering, to Harry Ruisi, Permits Administration Branch, United States Environmental Protection Agency, June 17, 1982.
11. Appendix-B to Engineering Report, A Plan For Closure, Prepared by Donnelly Engineering, July 1982.
12. Frank, O. L. and N. E. McClymonds. Summary of the Hydrologic Situation on Long Island, New York, as a Guide to Water-Management Alternatives. Geological Survey Professional Paper 627-F. United States Department of the Interior, 1972.
13. Federal Register Vol. 43, No. 120, pp. 26611 and 26612, Aquifers Underlying Nassau and Suffolk Counties, New York, June 21, 1978.
14. Uncontrolled hazardous waste site ranking system, A user's manual, 40 CFR, Part 300, Appendix A, 1986.
15. Hydrogeologic Data from Selected Wells and Test Holes in Suffolk County, Long Island, New York, 1972-80, U.S. Geological Survey Open File Report 81-500.
16. New York State Department of Health, New York State Atlas of Community Water System Sources, 1982.
17. General Sciences Corporation, Graphical Exposure Modeling System (GEMS). Landover, Maryland, 1986.

### REFERENCES (cont'd)

18. U.S. Department of the Interior, U.S. Geological Survey Topographic Maps, 7.5 Minute Series: "Greenlawn Quadrangle, New York", 1967, photorevised 1979; "Central Islip Quadrangle, New York", 1967, photorevised 1979.
19. Off-Site Reconnaissance Information Reporting Form, Microwave Power Devices Inc., TDD No. 02-8902-07, NUS Corporation Region 2 FIT, Edison, New Jersey, February 22, 1989.
20. Letter from Michael S. Scheibel, Senior Wildlife Biologist, New York State Department of Environmental Conservation, to Ms. Diane Trube, NUS Corporation, concerning federally listed endangered species, December 20, 1988.

REFERENCE NO. 1

EPA INSPECTION FORM

Report Prepared for:

Generator ☒

Transporter ☐

HWM (ISD) facility ☐

Copy of report sent to the facility ☐

Facility Information

Name: MICROWAVE POWER DEVICES INC

Address: 330 OSER AVE

HAUPPAUGE N.Y. 11788

EPA ID#: NYD 04447 0680

Date of Inspection: SEPT 16, 1983

Participating Personnel

State or EPA Personnel: AUGUST LA RUFFA

NYS DEC REG 1

Facility Personnel: MICHAEL CANALIZZO

PLANT ENGINEER

LOYD SILVERSTEIN - ASST CONTROL

Report Prepared by Name: AUGUST LA RUFFA

Agency: NYS DEC REG 1

Telephone #: (516) 751-7900

Approved for the Director by:

James L. White  
Regional Administrator  
Region 1, NY DEC

DATE No. 21703444-70080

NOT FOR RELEASE TO COMPANY, PROTECTED INFORMATION

## Summary, Conclusions and Recommendations

Facility is in the process of completing the installation of a new waste water treatment facility which will recycle the waste water for reuse. ~~and~~ Two new double wall fiberglass tanks will hold ~~and grow~~ the reuse water and charge. Once per year the tanks will be cleaned and removed.

Presently the liquid wastes are stored in an 800 gallon underground tank and shipped off site within 90 days.

The facility does not comply with the following requirements:

Personnel Training - 265.16

Contingency Plan - 215 Subject D

The facility has applied for a N.Y. State Part 360 Operating Permit. As part of that review, the state is requiring compliance with 360.8(c) which includes Personnel Training and Contingency Plan requirements.

The facility is well maintained and run.

Summary of Findings

Facility Description and Operations

Facility manufactures microwave telecommunications systems. The facility uses an etching process and tin plating line for component finishing. Also some PC board copper etching is done.

Presently the waste are stored in a 800 gallon underground tank which is pump out and removed by a licensed waste hauler (Chemical Management Co) in less than 90 days.

The facility is presently installing a waste water treatment which will recycle the rinse water for reuse in the plating system. Periodically the two new tanks (2000 each) which will be drained once per year and the sludge removed and hauled away by a licensed hauler. The waste water treatment equipment including the new tanks are installed but not yet operation. System operation is planned within 90 days.



Describe the activities that result in the generation of hazardous waste.

1. Indite process generate
2. Tin plating
3. Copper etching

Identify the hazardous waste located on site, and estimate the approximate quantities of each. (Identify Waste Codes)

Corrosive liquid wastes D002 - ~ 400 gals

Is there reason to believe that the facility has hazardous waste on-site?

- a. If yes, what leads you to believe it is hazardous waste?  
Check appropriate boxes:

- ☒ Company admits that its waste is hazardous during the inspection.
- ☒ Company admitted the waste is hazardous in its RCRA notification and/or Part A Permit Application.
- ☐ The waste material is listed in the regulations as a hazardous waste from a nonspecific source (§261.31)
- ☐ The waste material is listed in the regulations as a hazardous waste from a specific source (§261.32)
- ☐ The material or product is listed in the regulations as a discarded commercial chemical product (§261.33)
- ☒ Testing has shown characteristics of ignitability, corrosivity, reactivity or extraction procedure toxicity, or has revealed hazardous constituents (please attach analysis report)
- ☐ Company is unsure but there is reason to believe that waste materials are hazardous. (Explain)

Transporter Inspection Report Form

N/A

40 CFR Part 263 Transporter Standards

	YES	NO	N/A
263.10 - Does the transporter carry hazardous waste?	_____	_____	___
263.12 - Does the transporter store hazardous waste at a transfer facility - if yes, how long? _____ 10 days or less _____ more than 10 days (complete DOT form)	_____	_____	_____
<b>263.20 - Manifest System</b>			
1) Does the transporter have a copy for each manifest shipment of hazardous waste?	_____	_____	_____
2) Does a representative portion of the manifests show the following information (if no, circle the missing information)	_____	_____	_____
o Generator's name, address, telephone and EPA I.D. numbers, signature and date of signature	_____	_____	_____
o Transporter's name, EPA I.D. number, signature and date of signature	_____	_____	_____
o TSDF's name, address and EPA I.D. Number and either the signature and date of the TSDF or the name, EPA I.D., signature and date of the next transporter.	_____	_____	_____
o Manifest Document number	_____	_____	_____
o Proper DOT shipping description	_____	_____	_____
o Quantity & type of containers (If no, to any of the above obtain copies of incomplete manifests).	_____	_____	_____
3) Based on available information, do all manifests conform to the hazardous waste shipments made? If no, explain	_____	_____	_____
262.22 - Have records been kept since November 19, 1980?	_____	_____	_____
263.30 - Has there ever been a spill or discharge of hazardous waste during transportation? If yes, was the incident report submitted to DOT? (obtain copy of the report)	_____	_____	_____
263.31 - If there was any spill or discharge of hazardous waste, was it cleaned up? If no, explain.	_____	_____	_____

General Comments:

YES NO N/A

40 CFR Part 265 Subpart B General Facility Standards

265.13-General Waste Analysis

- 1) Is there a detailed chemical and physical analysis of a representative sample of the waste or each waste?  
(At a minimum this analysis must contain all the information necessary for proper management of the waste)
- 2) Does the character of the waste handled at the facility change from day to day, week to week, etc., thus requiring frequent testing?  
You may check only one

Waste characteristics vary \_\_\_\_\_  
All waste are basically the same \_\_\_\_\_  
Company treats all waste as hazardous \_\_\_\_\_

- 3) Is there a written waste analysis plan at the facility?  
Does it contain the following:
  - a) Parameters for each waste to be analyzed and the rationale for the selection of these parameters.
  - b) Test methods used to test these parameters.
  - c) Sampling methods to obtain a representative sample of the waste to be analyzed.
  - d) Frequency of repeated analysis to ensure accurate and current information.
- 4) Does hazardous waste come to this facility from an outside source? e.g. another generator.
- 5) If waste comes from an outside source, are there procedures in the plan to insure that waste received conforms to the accompanying manifest?

265.14-Security

- 1) Is there: a) a 24-hour surveillance system? or,  
b) a suitable barrier which completely surrounds the active portion of this facility?
- 2) Are there "Danger-Unauthorized Personnel Keep Out" signs posted at each entrance to the facility?  
If no, explain what measures are taken for security.

265.15 - General Inspections Requirements

- 1) Does the facility have a written inspection schedule?
- 2) Does the schedule identify the types of problems to be looked for and the frequency of inspections?
- 3) Does the owner/operator record inspections in a log?
- 4) Is there evidence that problems reported in the inspection log have been remedied?  
If no, please explain.

265.16 - Personnel Training

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
1) Have facility personnel successfully completed a program of classroom instruction or on-the-job training within 6 months of having been employed?	—	—	—
<u>If yes</u> , have facility personnel taken part in an annual review of training?	—	—	—
2) Is there written documentation of the following:			
— job title for each position at the facility related to hazardous waste management and the name of the employee filling each job?	—	—	—
— type and amount of training to be given to personnel in jobs related to hazardous waste management?	—	—	—
— actual training or experience received by personnel?	—	—	—
3) Are training records kept on all employees for at least 3 years?	—	—	—

265.17-General Requirements for Ignitable, Reactive or Incompatible wastes

1) Are there ignitable, reactive or incompatible waste on site?	—	—	—
<u>If yes</u> , what are the approximate types and quantities and location of the waste.			
2) Have precautions been taken to prevent accidental ignition or reaction of ignitable or reactive waste?	—	—	—
<u>If no</u> , please explain.			
3) In your opinion, are proper precautions taken so that these wastes do not:			
— generate extreme heat or pressure, fire or explosion, or violent reaction?	—	—	—
— produce uncontrolled toxic mist, fumes, dusts or gases in sufficient quantities to pose a risk of fire or explosions?	—	—	—
— damage the structural integrity of the device or facility containing the waste?	—	—	—
— threaten human health or the environment?	—	—	—

40 CFR 265 - Subpart C - Preparedness and Prevention

265.32 Does the facility comply with preparedness and prevention requirements including maintaining:

- an internal communications or alarm system?
- a telephone or other device to summon emergency assistance from local authorities?
- portable fire equipment?
- water at adequate volume and pressure to supply water hose streams, foam producing equipment, etc.

265.33 Is equipment tested and maintained?

265.34 Is there immediate access to communications or alarm systems during handling of hazardous waste?

265.35 Adequate aisle space?

If no, please explain storage pattern.

In your opinion, do the types of waste on-site require all of the above procedures, or are some not needed? Explain.

40 CFR 265 - Subpart D - Contingency Plan and Emergency Procedures

Does the facility have a written contingency plan for emergency procedures designed to deal with fires, explosions or any unplanned release of hazardous waste?

- 1) Does the plan describe arrangements made with the local authorities?
- 2) Has the contingency plan been submitted to the local authorities?
- 3) Does the plan list names, addresses and phone numbers of Emergency Coordinators?
- 4) Does the plan have a list of what emergency equipment is available?
- 5) Is there a provision for evacuating facility personnel?
- 6) Was there an emergency coordinator present or on call at the time of the inspection?

40 CFR 265 Subpart E-Manifest System, Recordkeeping and Reporting

265.71 - Use of the Manifest

1) Has the facility received hazardous waste from an off-site source since November 19, 1980?

If no, skip to 265.73 - Operating Record

2) If yes, does it appear that the facility has a copy of a manifest for each hazardous waste load received?

If not, please explain.

- 4) Does each manifest have the following information?  
(circle missing information)

- a manifest document number? \_\_\_\_\_
- the generators name, mailing address, telephone number and EPA I.D. #? \_\_\_\_\_
- the transporters name and EPA I.D. Number? \_\_\_\_\_
- the TSD name, address, telephone number & EPA I.D. Number? \_\_\_\_\_
- a description of the waste (DOT)? \_\_\_\_\_
- the total quantity of each hazardous waste by units of weight or volume, and the type and number of containers as loaded: into or onto the transport vehicle? \_\_\_\_\_
- a certification that the materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation under regulations of the DOT and EPA? \_\_\_\_\_

(Obtain a copy of the incomplete manifests)

265.72 - Manifest Discrepancies

Have there been significant discrepancies between the quantity and type of waste received and the waste identified on the manifest?

Describe unreconciled discrepancies.

265.73 - Operating Record

- 1) Does the facility keep an operating record? \_\_\_\_\_
- 2) Does the record contain the following information:
  - a) Description and quantity of waste on-site and the method(s) and date(s) of its Treatments, Storage & Disposal? \_\_\_\_\_
  - b) The location and quantity of each hazardous waste at each location? \_\_\_\_\_
  - c) Records and results of waste analysis and trial tests performed and identified in the waste analysis plan? \_\_\_\_\_
  - d) Summary reports and details of all incidents that require implementing the contingency plan. \_\_\_\_\_
  - e) Records and results of inspections for the past 3 years or November 19, 1980 which ever is less? \_\_\_\_\_
  - f) Monitoring, testing or analytical data where required for:  
Groundwater, Land Treatment, Incinerators, and Thermal Treatment? \_\_\_\_\_

265.76 - Unmanifested Waste Report

Has the facility accepted hazardous waste from off-site sources without a manifest?

If yes, has the facility submitted an unmanifested waste report?

(Applies only to surface impoundments, landfills and/or land treatment facilities.)

Is a groundwater monitoring plan available at the facility? \_\_\_\_\_

If yes, please fill out the appropriate Groundwater Monitoring Questionnaire and attach to this report.

40 CFR 265 Subpart G - Closure and Post-Closure

265.111 Closure Performance Standard

Have any portions of the facility been closed since November 19, 1980? \_\_\_\_\_

If yes, please explain \_\_\_\_\_

265.112 - Closure Plan

Does the facility have a written closure plan? \_\_\_\_\_  
(Applies to all types of TSD facilities)

If yes, does the written plan include:

1. A description of how and when the facility will be partially (if applicable) and ultimately closed? \_\_\_\_\_
2. An estimate of the maximum inventory of wastes in storage or treatment at any time during the life of the facility? \_\_\_\_\_
3. A description of the steps necessary to decontaminate facility equipment during closure? \_\_\_\_\_
4. A schedule for final closure including the anticipated date when waste will no longer be received and when final closure will be completed? \_\_\_\_\_
5. Does the owner/operator have a written estimate of the cost of closing the facility? \_\_\_\_\_

If yes, what is it? (\$)

265.118 - Post Closure Plan

Does the facility have a written post-closure plan? \_\_\_\_\_  
(Applies only to disposal facilities)

If yes, Does the Plan:

1. Identify the activities which will be carried on after closure and the frequency of these activities? \_\_\_\_\_
2. Include a description of planned groundwater monitoring activities and their frequency during post-closure? \_\_\_\_\_
3. Include a description of planned maintenance activities and frequency to insure integrity of final cover during post-closure? \_\_\_\_\_
4. Include the name, address and phone number of a person or office to contact during post-closure? \_\_\_\_\_
5. Does the owner/operator have a written estimate of the cost of post-closure for the facility? \_\_\_\_\_

If yes, what is it? (\$)



Please circle all appropriate activities and answer questions on indicated pages for all activities checked.

<u>Storage</u>	<u>Treatment</u>	<u>Disposal</u>
Container - pg 6	Tank - pg 7	Landfill - pg 11
Tank, above ground-pg 7	Surface Impoundment-pg 8	Land Treatment - pg 10
Tank, below ground-pg 7	Incineration - pg 12	Surface Impoundments - pg 8
Surface Impoundments-pg 8	Thermal Treatment- pg 12	Other _____
Waste Piles - pg 9	Land Treatment - pg 10	
Other _____	Chemical, Physical and Biological Treatment - pg 13	
	Other _____	

YES NO N/A

40 CFR 265 - Subpart I - Containers

- 1) - What type of containers are used for storage.  
Describe the size, type, quantity and nature of waste  
(e.g. 12 fifty-five gallon drums of waste acetone)

- 2) - Is there a containment system for spills, leaks and precipitation?

If yes, describe.

\_\_\_\_\_

- 265.171 - Do the containers appear to be in good condition, not in danger of leaking?

If not, please describe the type, condition and number of leaking or corroded containers. Be detailed and specific.

\_\_\_\_\_

- 265.172 - Are hazardous waste stored in containers made of compatible materials?

If not, please explain.

\_\_\_\_\_

- 265.173(a) - Are all containers closed except those in use?

\_\_\_\_\_

- 265.173(b) - Do containers appear to be properly opened, handled or stored in a manner which will minimize the risk of the container rupturing or leaking?

\_\_\_\_\_

- 265.174 - Is the storage area inspected at least weekly?

\_\_\_\_\_

- 265.176 - Are containers holding ignitable and reactive waste located at least 50 feet (15 meters) away from the facility's property line?

\_\_\_\_\_

- 265.177 - Are incompatible wastes stored separate from each other?

\_\_\_\_\_

If no, explain

40 CFR 265 Subpart J - Tanks

YES NO N/A

265.190 1) What are the approximate number and size of tanks containing hazardous waste?

\_\_\_\_

2) Identify the waste treated/stored in each tank.

265.192 - General Operating Requirements

1) Are the tanks maintained so that there is no evidence of past, present, or risk of future leaks?

\_\_\_\_

If no, please explain.

2) Are there leaking tanks?

\_\_\_\_

3) Are all hazardous wastes or treatment reagents being placed in tanks compatible with the tank material so that there is no danger of ruptures, corrosion, leaks or other failures?

\_\_\_\_

4) Do uncovered tanks have at least 2 feet of freeboard or an adequate containment structure?

\_\_\_\_

5) If waste is continuously fed into a tank, is the tank equipped with a means to stop the inflow from the tank? e.g. bypass system to a standby tank

\_\_\_\_

265.194 - Inspections

1) Is the tank(s) inspected each operating day for  
a. discharge control equipment  
b) monitoring equipment  
c) level of waste in tank

\_\_\_\_

\_\_\_\_

\_\_\_\_

2) Are the tanks and surrounding areas (e.g., dike) inspected weekly for leaks, corrosion or other failures?

\_\_\_\_

3) Are there underground tanks?

\_\_\_\_

If yes, how many and can they be entered for inspection?

\_\_\_\_

265.198 - Are ignitable or reactive wastes stored in a manner which protects them from a source of ignition or reaction?

\_\_\_\_

If no, please explain.

265.199 - Does it appear that incompatible wastes are being stored separate from each other?

\_\_\_\_

40 CFR 265 Subpart K - Surface Impoundments

YES NO N/A

Describe the design and operating features of the surface impoundment to prevent ground water contamination (e.g., liner leachate collection system).

265.220 - Give the approximate size of surface impoundments (gallons or cubic feet). Please specify the types of wastes stored and treated.

265.222 - Is there at least 2 feet of freeboard in the impoundment?                     

265.223 - Do all earthen dikes have a protective cover to preserve their structural integrity?                     

If yes, please specify the type of covering.

265.226 - 1) Is the free board level inspected daily?                     

2) Are the dikes surrounding the surface impoundment inspected for leaks, deterioration or failures inspected weekly?                     

265.229 - 1) Are any ignitable or reactive wastes placed in the impoundment?                     

2) If yes, is the waste treated immediately after placement in the impoundment to render the waste non-active and/or non-ignitable?                     

3) If no, to (2) explain.

265.230 - Are incompatible wastes placed in the impoundment?                     

If yes, explain.

40 CFR 265 Subpart L - Waste Piles

YES NO N/A

265.250 - How many waste piles are on-site and approximately how large are they? (Please indicate size and height and types of wastes in piles.)

265.251 - Is the waste pile protected from wind erosion?

a) Does it appear to need such protection?

b) Explain what type of protection does exist.

265.253 Containment.

1) Is leachate run-off from the waste piles a hazardous waste? If no, skip down to 265.256.

2) Is the pile placed on an impermeable base?

3) Is run-on diverted away from the pile?

4) Is the leachate and run-off collected and treated?

If no to any of the above questions above then:

5) Is the pile protected from precipitation and run-on?

6) Are wastes containing free liquids placed in the pile?

265.256 - 1) Are ignitable or reactive wastes placed on the pile? If no, skip to §265.257

2) Is the ignitable or reactive waste added to existing pile resulting in it no longer meeting the definition of ignitable and reactive? If no, explain.

3) Is the waste protected from any materials or condition that may cause it to ignite or react? If no, explain.

265.257 - Does it appear that a pile of incompatible wastes is being stored separate from other wastes or materials, or protected from them by means of a dike, berm, wall or other device? If no, explain.

40 CFR 265 Subpart M - Land Treatment

265.270 - Identify the types of waste and the size of the land treatment area?

265.272 - General Operating Requirements

YES NO N/A

- 1) Can the facility operator demonstrate that the hazardous waste has been made less or non-hazardous by biological degradation or chemical reactions occurring in or on the soil?

\_\_\_ \_\_\_ \_\_\_

Please explain how.

- 2) Is run-on diverted from the active portions of the land treatment facility?

\_\_\_ \_\_\_ \_\_\_

- 3) Is run-off from the active portions of the facility collected?

\_\_\_ \_\_\_ \_\_\_

If yes, is the run-off a hazardous waste?

\_\_\_ \_\_\_ \_\_\_

265.276 - Food Chain Crops

- 1) Are food chain crops being grown on the facility property?

If yes, can the facility operator document that arsenic lead and mercury:

\_\_\_ \_\_\_ \_\_\_

- will not be transferred to the crop or ingested by food-chain animals or

\_\_\_ \_\_\_ \_\_\_

- will not occur in greater concentrations in the crops grown on the land treatment facility than in the same crops grown on the untreated soils.

\_\_\_ \_\_\_ \_\_\_

- 2) Has notification of the growing of food chain crops been made to the Regional Administrator?

\_\_\_ \_\_\_ \_\_\_

265.278 - Is there a written and implemented plan for unsaturated zone monitoring?

\_\_\_ \_\_\_ \_\_\_

Make copy for office review.

265.279 - Are there records of the application dates, application rates, quantities and location of each hazardous waste placed at the facility?

\_\_\_ \_\_\_ \_\_\_

265.281 - Is ignitable or reactive waste immediately incorporated into the soil so that the resulting waste no longer meets that definition?

\_\_\_ \_\_\_ \_\_\_

If not, please explain.

265.282 - Are incompatible waste placed in separate land treatment areas?

\_\_\_ \_\_\_ \_\_\_

If no, please explain.

265.300 - Identify the types of waste and size of the landfill.

265.302 - General Operating Requirements

- 1) Is run-on diverted away from the active portions of the landfill? \_\_\_\_\_
- 2) Is run-off from active portions of the landfill collected? \_\_\_\_\_
- 3) Is waste which is subject to wind dispersal controlled? \_\_\_\_\_

Please explain how.

265.309 - Does the owner/operator maintain a map with:

- 1) The exact location and dimensions of each cell? \_\_\_\_\_
- 2) The contents of each cell and approximate location of each hazardous waste type? \_\_\_\_\_

265.312 - Is ignitable or reactive waste treated so that it is not ignitable or reactive before being placed in the landfill?

Explain how you know.

265.313 - Are precautions taken to ensure that incompatible wastes are not placed in the same landfill cell?

If no, please explain.

265.314 Special Requirements for Liquid Waste

- 1) Are bulk or non-containerized wastes containing free liquids placed in the landfill? \_\_\_\_\_

If yes,

- a) Does the landfill have a liner which is chemically and physically resistant to the added liquid? or \_\_\_\_\_
- b) Is the waste treated and stabilized so that free liquids are no longer present? \_\_\_\_\_

- 2) Are containers holding liquid waste or waste containing free liquids placed in the landfill? \_\_\_\_\_

Please describe the types and contents of such containers placed in the landfill.

265.315 - Are empty containers placed in the landfill crushed flat, shredded or similarly reduced in volume before they are buried? \_\_\_\_\_

265.316 - Are small containers of hazardous waste in overpacked drums placed in the landfill? \_\_\_\_\_

If yes, please describe precautions taken to prevent the release of the waste.

What type of waste is being incinerated or thermally treated?  
e.g., organic solvents, acids, bases, etc.

2) List the types and quantities of HW incinerated or thermally treated.

3) Is the residue from the incinerator thermal treatment unit a hazardous waste?

4) What types of air pollution control devices (if any) are installed in the incinerator/or thermal treatment unit?

5) Is energy recovered from the process?  
If yes, describe.

6) What is the destruction and removal efficiency for the organic hazardous waste constituents?

265.341 - Does the operating record include additional analysis  
and to determine types of pollutants which might be emitted including:  
265.375

- heating value of the waste?

- halogen and sulfur content?

- concentrations of lead and mercury?

If no to any of the above questions is there justification and documentation?

265.345 If operating, does it appear the incinerator/or thermal  
and treatment unit is operating at steady state for con-  
265.373 ditions of operation, including temperature and air flow?

265.347 - Monitoring and Inspection  
and

265.377 1) Are existing instruments relating to combustion  
and emission controls monitored every 15 minutes?

If no, explain

2) Does the incinerator/thermal treatment have all the  
following instruments for measuring: wastefeed,  
auxiliary fuel feed air flow, incinerator temperature  
scrubber flow, and scrubber pH? (Circle missing  
instruments)

If no, explain.

3) Is the stack plume observed visually at least  
hourly for opacity and color?

4) Are there any signs of leaks, spill and fugitive  
emissions associated with the pumps, valves,  
conveyors, pipes etc? If yes, describe.

5) Are all emergency shutdown controls and system  
alarms checked to assure proper operation?

6) Is there any reason to believe the incinerator  
is being operated improperly? i.e., steady state  
conditions are not maintained.  
If yes, explain.

7) Is the incinerator/thermal treatment inspected  
daily?

YES NO N/A

265.382 Is there open burning of hazardous waste?                     

a) If yes, what is being burned? (Only burning or detonation of explosives is permitted)

b) If open burning or detonation of explosives is taking place approximately what is the distance from the open burning or detonation to the property of others?

40 CFR 265 Subpart C - Chemical, Physical and Biological Treatment  
(other than in tanks, surface impoundments or land treatment facilities)

1) Describe the treatment system at this facility and the types of wastes treated.

265.401 - Does the treatment process system show any signs of ruptures, leaks or corrosion?                     

If yes, describe.

265.401 - Is there a means to stop the inflow of continuously-fed hazardous wastes?                     

265.403 - Inspections

1) Is the discharge control safety equipment (e.g. waste feed cut-off systems, by-pass systems, drainage systems and pressure relief systems) in good working order?                     

Are they inspected at least once each operation day?                     

2) Does the data gathered from the monitoring equipment (e.g., pressure and temperature gauges) show treatment process is operating according to design?                     

Is data gathered at least once each operating day?                     

3) Are construction materials of the treatment process inspected at least weekly to detect corrosion or leaking of fixtures and seams?                     

4) Are the discharge confinement structures, (e.g. dikes) immediately surrounding the treatment unit inspected at least weekly to detect erosion or obvious signs of leakage (e.g. wet spots or dead vegetation)?                     

265.405 - Are ignitable or reactive waste fed into the waste treatment system treated or protected from any material or conditions which may cause it to ignite or react?                     

If yes, explain how.

265.406 - Are the incompatible wastes placed in the same treatment process?                     

If yes, please explain.



-1-  
GENERATOR INSPECTION CHECKLIST

40 CFR 262 Subpart A-General

YES NO N/A

262.11 - Hazardous waste determination

- 1) Did the generator test its waste to determine whether it is hazardous?

Is the waste hazardous?

- 2) Is the generator determining that its waste exhibits a hazardous waste characteristic(s) based on its knowledge of the material(s) or processes used?

*knowledge of system*

40 CFR 262 Subpart B-The Manifest

Has hazardous waste been shipped off-site since November 19 1980?

If yes, approximately how many shipments, off-site, have been made and describe the approximate size of an average shipment made on a monthly basis. If facility is a small quantity generator, please explain.

*~ 12 shipments ~ 600 gals*

262.21 Does each manifest (or representative sample) have the following information? Please circle the missing elements.

- a manifest document number?
- the generators name, mailing address, telephone number and EPA I.D. Number?
- the transporters name and EPA I.D. Number?
- the name, address and EPA ID Number of the designated facility?
- a description of the wastes (DOT)?
- the total quantity of each hazardous waste by units of weight or volume, and the type and number of containers as loaded into or onto the transport vehicle?
- a certification that the materials are properly classified, described, package, marked and labeled, and are in proper condition for transportation under regulations of the DOT and EPA?

(obtain a copy of the incomplete manifests)

40 CFR 262 - Subpart D - Recordkeeping and Reporting

262.40 Has the generator maintained facility records since Nov. 19 1980? (manifest, exception report and waste analysis)

262.42 Has the generator received signed copies (from the TSD facility) of all the manifests for waste shipped off-site more than 35 days ago?

If not, have Exception Reports been submitted to EPA covering any of these shipments made more than 45 days ago?

40 CFR 262 - Subpart C - Pretransportation Requirements

YES NO N/A

262.30-33 Before transporting or offering hazardous waste for transportation off-site does the generator:

*waste pumped directly from storage tank to tanker truck*

1) Package the waste in accordance with applicable DOT regulations (i.e., 49 CFR Parts 173, 178 & 179)

\_\_\_ \_\_\_ ☒

2) Label each package according to DOT (i.e., 49 CFR 172)

\_\_\_ \_\_\_ ☒

3) Mark each package according to DOT (i.e., 49 CFR 172)

\_\_\_ \_\_\_ ☒

4) Mark each container of 110 gallons or less with the words "Hazardous Waste - Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. EPA," and include the generator's name, address and manifest document number. (i.e., 49 CFR 172.304)

\_\_\_ \_\_\_ ☒

262.34 Accumulation Time

1) How is waste accumulated on-site?

☐ Containers

☒ Tanks

☐ Surface impoundments (complete BMT checklist)

☐ Piles (complete BMT checklist)

2) Is waste accumulated for more than 90 days?

\_\_\_ ☒ \_\_\_

If yes, complete BMT checklist

3) Is each container clearly dated with each period of accumulation so as to be visible for inspection?

\_\_\_ ☒ \_\_\_

4) Is each container or tank marked or labeled with the words "hazardous waste" or in compliance with the DOT labeling requirements?

\_\_\_ ☒ \_\_\_

STOP HERE IF THE HAZARDOUS WASTE MGT FACILITY (TSD) CHECKLIST IS FILLED OUT

262.34 - SHORT TERM ACCUMULATION STANDARDS

(For generators who accumulate waste in tanks or containers for 90 days or less)

40 CFR 265 - Subpart I Containers

YES NO N/A

- N/A
- 265.170 - What type of containers are used for storage. Describe the size, type and quantity and nature of waste (e.g., 12 fifty-five gallon drums of waste acetone). ☒
- 265.171 - Do the containers appear to be in good condition, not in danger of leaking? ☒  
If not, please describe the type, condition and number of leaking or corroded containers. Be detailed and specific.
- 265.172 - Are hazardous waste stored in containers made of compatible materials? ☒  
If not, please explain.
- 265.173(a) - Are all containers closed except those in use? ☒
- 265.173(b) - Do containers appear to be properly opened, handled or stored in a manner which will minimize the risk of the container rupturing or leaking? ☒
- 265.174 - Is the storage area inspected at least weekly? ☒
- 265.176 - Are containers holding ignitable and reactive waste located at least 50 feet (15 meters) away from the facility's property line? ☒
- 265.177 - Are incompatible waste stored separate from each other? ☒

40 CFR 265 Subpart J - Tanks

YES NO N/A

265.190 1) What are the approximate number and size of tanks containing hazardous waste?

one - 800 gal buried tank  
corrosive liquid

--- --

265.192 - General Operating Requirements

1) Are the tanks maintained so that there is no evidence of past, present, or risk of future leaks?

✓ ---

If no, please explain.

2) Are there leaking tanks?

~~---~~ ✓ ---

3) Are all hazardous wastes or treatment reagents being placed in tanks compatible with the tank material so that there is no danger of ruptures, corrosion, leaks or other failures?

✓ ---

4) Do uncovered tanks have at least 2 feet of freeboard or an adequate containment structure?

--- ✓

5) If waste is continuously fed into a tank, is the tank equipped with a means to stop the inflow from the tank? e.g. bypass system to a standby tank

✓ ---

265.194 - Inspections

1) Is the tank(s) inspected each operating day for  
a) discharge control equipment

✓  
✓ ---  
✓ ---

b) monitoring equipment

c) level of waste in tank (weekly)

2) Are the tanks and surrounding areas (e.g., dike) inspected weekly for leaks, corrosion or other failures?

✓ ---

3) Are there underground tanks?

✓ ---

If yes, how many and can they be entered for inspection?

✓ ---

265.198 - Are ignitable or reactive wastes stored in a manner which protects them from a source of ignition or reaction?

--- ✓

If no, please explain.

265.199 - Does it appear that incompatible wastes are being stored separate from each other?

--- ✓

265.26 - Personnel Training

- 1) Have facility personnel successfully completed a program of classroom instruction or on-the-job training within 6 months of having been employed?

✓ — —

If yes, have facility personnel taken part in an annual review of training?

✓ — —

- 2) Is there written documentation of the following:

— job title for each position at the facility related to hazardous waste management and the name of the employee filling each job?

— ✓ —

— type and amount of training to be given to personnel in jobs related to hazardous waste management?

— ✓ —

— actual training or experience received by personnel?

— ✓ —

- 3) Are training records kept on all employees for at least 3 years?

— ✓ —

40 CFR 265 - Subpart C - Preparedness and Prevention

265.32 Does the facility comply with preparedness and prevention requirements including maintaining:

— an internal communications or alarm system?

✓ — —

— a telephone or other device to summon emergency assistance from local authorities?

✓ — —

— portable fire equipment?

✓ — —

— water at adequate volume and pressure to supply water hose streams, foam producing equipment, etc.

✓ — —

265.33 Is equipment tested and maintained?

✓ — —

265.34 Is there immediate access to communications or alarm systems during handling of hazardous waste?

✓ — —

265.35 Adequate aisle space?

✓ — —

If no, please explain storage pattern.

In your opinion, do the types of waste on-site require all of the above procedures, or are some not needed? Explain.

✓ — —

40 CFR 265 - Subpart D - Contingency Plan and Emergency Procedures

Does the facility have a written contingency plan for emergency procedures designed to deal with fires, explosions or any unplanned release of hazardous waste?

— ✓ —

- 1) Does the plan describe arrangements made with the local authorities?

— — —

- 2) Has the contingency plan been submitted to the local authorities?

— — —

- 3) Does the plan list names, addresses and phone numbers of Emergency Coordinators?

— — —

- 4) Does the plan have a list of what emergency equipment is available?

— — —

- 5) Is there a provision for evacuating facility personnel?

— — —

- 6) Was there an emergency coordinator present or on call at the time of the inspection?

— — —

REFERENCE NO. 2

REGION: \_\_\_\_\_  
 Major: \_\_\_\_\_  
 Non-Major: \_\_\_\_\_

NEW YORK STATE INDUSTRIAL HAZARDOUS WASTE MANAGEMENT ACT

(Chapter 639, Laws of 1978)

Prepared for:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
 Henry G. Williams, Commissioner

Division of Solid and Hazardous Waste  
 Norman H. Nosenchuck, Director

Send to: Compliance Inspection Section  
 50 Wolf Road - Room 207/415  
 Albany, New York 12233-0001

EPA I.D. NUMBER: N Y D 4 4 4 7 0 8 2

\*HANDLER'S NAME (Corporate): M. Amos Power Devices Inc.  
 (Division): \_\_\_\_\_

\*HANDLER'S MAILING ADDRESS: M. Amos Power Devices Inc.  
330 Oak Ave  
Hempstead, NY Zip Code 11558  
 City & State \_\_\_\_\_

\*HANDLER'S LOCATION ADDRESS:  
 (if different than mailing)  
 City & State \_\_\_\_\_ Zip Code \_\_\_\_\_

\*HANDLER'S TELEPHONE NUMBER: (516) 281-1111 Extension \_\_\_\_\_

\*FULL NAME OF HANDLER'S CONTACT: (Mr.) (Ms.) M. Amos Power Devices Inc. Engineer  
Team Manager Manager of Plant Services

\*SIGNATURE OF HANDLER'S CONTACT: \_\_\_\_\_

(This signature is not an admittance to any violations cited herein. It merely acknowledges that an inspection took place.)

\*TITLE OF HANDLER'S CONTACT: \_\_\_\_\_

INSPECTION DATE: 5-5 TIME OF INSPECTION: 10:00 a.m.  
 COUNTY: Suffolk E/A NUMBER: 47 34 00 p.m.

INSPECTOR'S NAME: John H. Hennes Joe F. Hennes  
 TITLE: Inspector Inspector  
 NAME: \_\_\_\_\_  
 TITLE: \_\_\_\_\_

CHECK ONE: Copy of THIS report ( ) has) ( ☒ has not) been given to the Handler.

REPORT PREPARED BY: John H. Hennes DATE: 7/3/86  
 REPORT APPROVED BY: Robert A. B... DATE: 7/7/86

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\* For the purpose of this Inspection Report - HANDLER means a hazardous waste Generator, Transporter, Storage or Disposal Facility (TSDF).



New York State Department of Environmental Conservation  
Division of Solid and Hazardous Waste  
50 Wolf Road, Albany, New York 12233

PART I

General Information and Classification of Facility

1. Identification of Hazardous Waste - 371

Yes      No

A. Is there reason to believe the facility has hazardous waste on-site? If yes, what leads you to believe it is hazardous waste? Check appropriate box/boxes and attach any applicable correspondence with DEC or EPA:

X      \_\_\_\_\_

(1) X Company recognizes that its waste is hazardous during the inspection.

(2) X Company admitted the waste is hazardous in its RCRA notification and/or Part A permit application.

(3) X EPA testing has shown characteristics of:  
(X) ignitability - 371.3(b);  
(X) corrosivity - 371.3(c);  
( ) reactivity - 371.3(d);  
( ) EP toxicity - 371.3(e)

\_\_\_\_\_ Has revealed hazardous constituents (please attach analysis report) 371.4(a)(2), Appendix 22, Appendix 23

(4) X The material is listed in the regulations as a hazardous waste from non-specific sources 371.4(b).

(5) \_\_\_\_\_ The waste material is listed in the regulations as a hazardous waste from specific sources. 371.3(c).

(6) X The material or product is listed in the regulations as discarded commercial chemical products, off-specification species, container residues and spill residues thereof. 371.4(d).

(7) \_\_\_\_\_ Company is unsure, but they have reason to believe that waste materials are hazardous. (Explain) \_\_\_\_\_

(8) \_\_\_\_\_ If don't know, please explain: \_\_\_\_\_

B. Is there reason, other than those above, for you to believe that there is hazardous waste on site? (Explain) NS

C. What other environmental permits are held by the company, relative to hazardous waste management?

       SPDES Permit Number        X Air Permit Number

       Part 364 Industrial Waste Transporter Permit (indicate this company's permit number if any)

Please describe other relevant (if any) permits and give the name, address, Part 364 Permit Number and EPA I.D. Number of transporter(s) used by company.

Pride Solvents & Chemical Co Inc NY000077222165

RCM Liquid Waste Removal Corp NY0000595507

Techtronic Environmental Corp NY00007824334

Chemical Management Inc NY0000769944

D. If the facility is a treatment, storage or disposal facility, have they:

X Submitted a Part A application.        Have changes been made that are not reflected in the Part A application? Should the Part A be modified by the Company?        If so, explain.

NO Submitted a Part B application.

NO Been granted a Part 373 permit.

If so, when does it expire:       

Please attach or explain any special conditions or variances - 373-1.1(e)

NO Been granted a hazardous waste Part B permit.

If so, also complete the facility Part B (Part 373) permitted inspection report - Appendix K.

- E. Describe the activities that result in the generation of hazardous waste. Include the company's manufacturing processes. \_\_\_\_\_

Facility manufactures microwave telecommunication systems  
PC Board copper etching is done. Electronic Assembly  
and the chromate coating of aluminum parts - aka takes  
place at the facility.

- F. Identify the hazardous wastes that are on-site and the quantity of each (use the identification numbers referred to in Part 371). \_\_\_\_\_

P001 - 1,1,1-trichloroethane, Freon (46-55 gallon drums)  
P002 - Ammonium Peroxide, Peroxide (2-55 gal drums)  
P003 - Acetone, Ethyl Alcohol, Methyl Alcohol (2-55 gal drums)  
P004 - Chloroform (2-55 gallon drums)  
55 gallon drum of residue

- G. The handler notified EPA as a:

Generator

Has EPA or DEC officially modified the handlers status? If so, attach correspondence. No

---

2. Status Identification:

This handler should be inspected as a (check each appropriate category after considering exemptions)

A. N/A Transporter - complete Appendix B

B. Generator Status Identification 372.1

1. ☐ Category 1 generator - small quantity generator - generates less than 100 kg/mo and stores less than 100 kg. - 372.1(e)(1)i - Complete Part II, 1A.
2. ☐ Category 2 generator - small quantity generator - generates less than 100 kg/mo and stores more than 100 kg but less than 1,000 kg. - 372.1(e)(1)ii - Complete Part II, 1B.
3. ☐ Category 3 generator - small quantity generator - generates more than 100 kg/mo but less than 1,000 kg/mo and stores less than 1,000 kg. - 372.1(e)(1)iii - Complete Part II, 1B and 1C.
4. ☐ Category 4 generator - small quantity generator containing less than - (372.1(e)(1)(iv)) - Complete Part II, 1A.
  - (a) ☐ A total of one kilogram of all commercial product or manufacturing chemical intermediate having the generic name listed in paragraph 371.4(d)5.
  - (b) ☐ A total of one kilogram of any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraph 371.4(d)5.
  - (c) ☐ Any containers identified in paragraph 371.4(d)(3) of this title that are larger than 20 liters in capacity.
  - (d) ☐ A total of 10 kilograms of inner liner from containers identified in paragraph 371.4(d)(3) of this title.
  - (e) ☐ One hundred (100) kilograms of any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any commercial chemical product, off-specification product, or manufacturing chemical intermediate having the generic name listed in paragraph 371.4(d)5 of this title.

5. / Category 5 generator - generated 1,000 kilograms or more per month - Complete Part II. Generators in Kings, Queens, Nassau and Suffolk Counties also complete Appendix A.
6. / Category 6 generator - stores 1,000 kilograms or more - Complete Part II. Generators in Kings, Queens, Nassau and Suffolk Counties also complete Appendix A.

C. Treatment, Storage or Disposal Facility Status

1. Is hazardous waste generated and stored on-site? If so:
- (a) NO Has hazardous waste been stored on-site longer than 90 days? 373-1.1(d)(1)(iii) - If yes, complete Appendix A.
- (b) NO Has more than 8,800 gallons of hazardous waste been stored in containers? 373-1.1(d)(ii)(a) - If yes, complete Appendix A.
- (c) NO Has more than 20,000 gallons of hazardous waste been stored in tanks? 373-1.1(d)(iii)(b) - If yes, complete Appendix A.
2. NO Hazardous waste received from off-site and not beneficially used, reused or legitimately recycled or stored. If yes, complete Appendix A.
3. Yes Hazardous waste is treated on-site.
4. NO Hazardous waste is disposed of on-site.

3. Exemptions

If the handler is inspected other than as they notified (e.g., notified as generator/TSD - inspected as exempt generator) a full explanation should be included in Part III.

A. Generator Exemptions

- (1) N/A Not a regulated handler (be sure to indicate why in Part I 1F and 1G and/or in appropriate exemption below - for example the company notified for precautionary reasons or the waste generated is not hazardous as specified in 371.1(e)(2).
- (2) N/A Delisted hazardous waste. IDENTIFY the waste that was delisted: (If the company is in the delisting process they are still regulated until their delisting petition is favorably approved) Complete appropriate parts depending on company status.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- (3) N/A Exemption for used engine lubricating oil. 372.1(e)(8) -

- (4) N/A Exemption for farmers. 372.1(e)(3). Only if he triple rinses each emptied pesticide container in accordance with paragraph 372.1(e)(3)(i), and disposes of the pesticide residues on his own farm in a manner consistent with Section 325.4(d) of this title or in a manner consistent with the disposal instructions on the pesticide label, whichever is more restrictive.
- (5) N/A Exemption for publicly owned treatment works 372.1(e)(4).
- (6) N/A Samples collected for testing. 372.1(e)(5).
- (7) N/A Residues of hazardous waste in empty containers. 372.1(e)(6).
- (8) N/A A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste treatment manufacturing unit is not subject to regulation until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials. 372.1(e)(7).
- (9) N/A Mixed with non-hazardous waste is exempt only if unregulated quantity is mixed and the resulting mixture does not fail a characteristic test - 372.1(e)(1)(v).

B. TSD Exemptions X SEE Attachment # 1

1. TSD exemptions - 373-1.1(d)(1) (for facilities and operations that manage hazardous waste other than waste oil)
  - (a) N/A The disposal of waste pesticides on a farm by the farmer who generated them if the container or inner liner has been triple rinsed or the inner liner has been removed and the disposal method is proper - 373-1.1(d)(1)(ii); 372.1(e)(3).
  - (b) N/A Storage of characteristic hazardous waste other than sludge prior to its beneficial use or reuse or legitimate recycling or reclamation. Any off-site facility which stores hazardous waste destined for energy recovery must obtain an EPA identification number. 373-1.1(d)(1)(vi). If yes, complete Part II, 2, 3C, 3D.
  - (c) N/A Beneficial use or reuse or legitimate recycling or reclamation of a characteristic hazardous waste other than sludge. (373-1.1(d)(1)(vii))
  - (d) N/A Beneficial use or reuse or legitimate recycling or reclamation of a listed hazardous waste or hazardous waste sludge other than at commercial facilities. Any off-site facility must have an EPA identification number. (373-1.1(d)(1)(viii))

- (e)      The treatment of characteristic hazardous waste other than sludge prior to its beneficial use or reuse or legitimate recycling or reclamation. 373-1.1(d)(1)(ix).
  - (f)      The treatment of a listed hazardous waste or hazardous waste sludge prior to its beneficial use or reuse or legitimate recycling or reclamation other than at commercial facilities. Any off-site facility must have an EPA identification number. (373-1.1(d)(1)(x))
  - (g) N/A Totally enclosed treatment facility (373-1.1(d)(1)(xi))
  - (h)      Elementary neutralization units or wastewater treatment units other than units located at commercial facilities. If yes, complete Part II, 2, 3C, 3d, 5, 6, 7. (373-1.1(d)(1)(xii))
  - (i)      A wastewater treatment facility holding a SPDES Permit for a surface water point source discharge reuses spent pickle liquor or facilities that accumulate, store or physically, chemically or biologically treat spent pickle liquor prior to reuse in a wastewater treatment facility. (373-1.1(d)(1)(xvi))
  - (j)      The addition of absorbent material with the purpose of preparing the waste for incineration or to fill void spaces in containers intended for land disposal. If yes, complete Part II 3.C.2, 3.C.3, 3.C.8. (373-1.1(d)(1)(xvii))
2. TSD exemptions - 373.1.1 (d)(2) (for facilities and operations that manage waste oils)
- (a)      Storage or treatment of waste oil generated on-site prior to its beneficial use or reuse or legitimate recycling or reclamation if the waste oil is not a listed hazardous waste, and the waste oil is not a hazardous sludge. 373-1.1(d)(2)(ii). If yes, complete Part II: 2, 3C, 3D, 5, 6, 7.
  - (b)      Exemptions for storage of waste oil at an energy recovery facility prior to its on-site combustion of such waste oils are not listed hazardous wastes, waste oils are not hazardous sludges, and the facility stored less than 80,000 gallons of waste oil. 373-1.1(d)(2)(iii). If yes, complete Part II: 2, 3C, 3D, 5, 6, 7.
  - (c) N/A Combustion units that recover energy from waste oil, other than listed hazardous waste and sludges and the related treatment on-site of such combustion units.
3. TSD exemptions - (for facilities and operations that manage hazardous waste or waste oils).

- (a) N/A Storage of hazardous waste generated and stored on-site for 90 days or less and 8,300 gallons or less is stored in containers or 20,000 gallons or less is stored in tanks. The facility can not be located in a geographical area overlying a sole source aquifer. If yes, complete Part II, 2A, 3C, 3D. 373-1.1(d)(1)(iii).
- (b) N/A Storage or treatment of hazardous waste on-site of generation if generated and stored less than 1,000 kilograms of hazardous waste in each calendar month and do not generate or store acute hazardous waste as described in 373-1.1(d)(1)(i)(b). 373-1.1(d)(1)(v).
- (c) N/A Treatment or containment activities during an immediate response 373-1.1(d)(1)(xiii).
- (d) N/A Accumulation areas. If yes, complete Part II: 3C, questions 1-5. 373-1.1(d)(1)(xiv).
- (e) N/A Storage of manifested shipments of hazardous waste in containers or vehicles by a transporter at its own transfer facility for 5 days or less. If yes, complete Appendix B: 3. 373-1.1(d)(1)(xv).

#### 4. Environmental Facilities Corporation (EFC) Survey

The following questions are voluntary:

The Environmental Facilities Corporation (EFC) is actively involved in the industrial materials recycling program, and these questions will assist EFC in carrying out this program. It may also be beneficial to the facility being inspected in that acceptable markets or more economical alternatives to the facility's current disposal techniques may be brought to their attention.

- A. Does the company believe their hazardous waste has the potential for recovery, reclamation or exchange with other companies to minimize disposal costs? ☒ Yes ☐ No ☐ Don't Know

If yes:

- B. Does the company wish to list their waste stream in the Northeast Industrial Waste Exchange Listings Catalog? ☒ Yes ☐ No ☐ Don't Know
- C. Does the company want to receive additional information about the potential for waste exchange? ☒ Yes ☐ No ☐ Don't Know
- D. Does the company wish to obtain assistance from the New York State Environmental Facilities Corporation to assess the potential for recovery, reclamation or exchange of the hazardous waste stream? ☒ Yes ☐ No ☐ Don't Know

The Company representative may wish to contact Mr. Pickett Simpson, Hazardous Waste Program Manager, Environmental Facilities Corporation, 50 Wolf Road, Room 527, Albany, New York 12233 at (518) 457-4138.



New York State Department of Environmental Conservation  
Division of Solid and Hazardous Waste  
Bureau of Hazardous Waste Operations  
50 Wolf Road, Albany, New York 12233

Part II

Generator Inspection Section

Indicate:

X Violations

Indicate:

X Satisfactory  
NA Not Applicable

1. Requirements for Category 1-4 Generators:

Refer to questions based upon category checked in Part I.

If in Part I an exemption applies, inspection is complete if the requirements for the generator category are met.

N/A

A. If Category 1 and 4 generators or generators exempt for used engine lubricating oil, has met the following:

\_\_\_ disposed in a solid waste facility - 372.1(e)(1)(i)(b)

N/A

\_\_\_ made a hazardous waste determination - 372.1(e)(1)(i)(a)

N/A

B. If Category 2 and 3 generators has met the following:

\_\_\_ made a hazardous waste determination - 372.1(e)(1)(ii)(a)

N/A

\_\_\_ disposed of in authorized hazardous waste facility - 372.1(e)(1)(ii)(b)

N/A

\_\_\_ submitted document justifying exemption - 372.1(e)(1)(ii)(c)

N/A

\_\_\_ used appropriate containers; properly packaged, labeled and marked during storage and shipment - 372.1(e)(1)(ii)(d)

N/A

\_\_\_ had containers and tanks stored properly; not open, not handled or stored in a way which may cause it to leak; inspected at least quarterly - 372.1(e)(1)(ii)(e)

N/A

\_\_\_ had tanks designed, constructed and operated in accordance with regulations - 372.1(e)(1)(ii)(f)

N/A

\_\_\_ had tanks properly sheltered and protected - 372.1(e)(1)(ii)(g)

N/A

C. If Category 3 generator, has:

\_\_\_ annual report prepared - 372.1(e)(1)iii; and

N/A

\_\_\_ sent to DEC - 372.2(c)2

N/A

Indicate:

X Violations

Indicate:

X Satisfactory

NA Not Applicable

For Category 5 and 6 generators complete remainder of Part II.

2. Labeling & Marking

A.        The container is clearly marked and visible for inspection with the date upon which each period of accumulation begins -       X        
372.2(a)(8)(ii)

B.        The container is labeled and marked in accordance with       X        
372.2(a)(5), (6), and (7).

3. On-site accumulation of hazardous waste prior to shipment  
(For generators who accumulate any hazardous waste for a period of 90 days or less or store 8,800 gallons or less in containers or 20,000 gallons or less in tanks.)

A.        All such wastes are shipped off-site to an authorized treatment, storage or disposal (TSD) facility in 90 days or less. 372.2(a)(8)(ii)       X      

B.        The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container 372.2(a)(8)(ii)       X      

C.        Standards for management of containers - 372.2(a)(8)(ii); 373-3.9  
(This section will also be completed for TSD's as referred to from Appendix A.)

1. What type of containers are used for accumulation? Describe the size, type. (e.g., 12 fifty-five gallon drums of waste acetone).

Box 1 - 11 1/2 inch x 6 inch x 6 inch (11 1/2 inch x 6 inch x 6 inch)

Box 2 - Acetone in 12 1/2 inch x 6 inch x 6 inch (12 1/2 inch x 6 inch x 6 inch)

Box 3 - Acetone in 12 1/2 inch x 6 inch x 6 inch (12 1/2 inch x 6 inch x 6 inch)

Box 4 - Chloroform 12 1/2 inch x 6 inch x 6 inch (12 1/2 inch x 6 inch x 6 inch)

1 1/2 inch x 6 inch x 6 inch (1 1/2 inch x 6 inch x 6 inch)

Indicate:

X Violations

Indicate:

X Satisfactory  
NA Not Applicable

2. \_\_\_\_\_ The containers appear to be in good condition and are not in danger of leaking. (If containers are leaking, describe the type, condition and number that are leaking or corroded. Be detailed and specific) - 373-3.9(b) X
3. \_\_\_\_\_ Hazardous waste stored in containers made of compatible materials 373-3.9(c) (If not, please explain). X
4. \_\_\_\_\_ All containers except those in use are closed - 373-3.9(d)(1) X
5. \_\_\_\_\_ Containers holding hazardous waste must not be opened, handled or stored in a manner which may rupture the container or cause it to leak - 373-3.9(d)(2) X
6. \_\_\_\_\_ The storage area is inspected at least weekly - 373-3.9(e) X
7. \_\_\_\_\_ The generator complies with the following special requirements related to storage of ignitable, or reactive wastes 373-3.9(f):
- (a) \_\_\_\_\_ Containers holding ignitable or reactive waste are located at least 15 meters (50 feet) from the facility property line. 373-3.9(f) X
- (b) X Generator has taken precautions to prevent accidental ignition or reaction of ignitable or reactive waste - 373-3.2(h)(1) \_\_\_\_\_  
*Drums were not grounded*
- (c) X Generator has placed "No Smoking" signs conspicuously wherever there is a hazard from ignitable or reactive waste - 373-3.2(h)(1) \_\_\_\_\_

Indicate:

X Violations

Indicate:

X Satisfactory  
NA Not Applicable

8. The generator complies with the following special requirements related to incompatible wastes: 373-3.9(g)
- (a) The storage of ignitable or reactive wastes, and the mixture or comingling of incompatible wastes, or incompatible wastes and materials, is conducted to prevent - 373-3.2(h)(2)
- (1)        the generation of extreme heat or pressure, fire or explosion, or violent reaction - 373-3.2(h)(2)(i) NA
- (2)        production of uncontrolled toxic mists, fumes, dusts or gases in sufficient quantities to threaten human health - 373-3.2(h)(2)(ii) NA
- (3)        production of uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions - 373-3.2(h)(2)(iii) NA
- (4)        the damage to the structural integrity of the device or facility containing the waste - 373-3.2(h)(2)(iv) NA
- (5)        a threat to human health or the environment - 373-3.2(h)(2)(v) NA
- (b)        Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material. 373-3.9(g)(2) NA
- (c)        Hazardous waste in containers stored nearby incompatible waste or material is separated by the incompatible waste by a dike, berm, wall or other device. 373-3.9(g)(3). NA

D. Standards for management of tanks - 372.2(a)(8)(ii); 373-3.10

1. What are the approximate number and size of tanks containing hazardous waste?

1 - 880 gallon underground tank (To the point of being closed)

1 - 1000 Above ground tank

1 - 2000 gallon underground tank

2. Identify the waste treated/stored in each tank. Include whether they are above or below ground.

1200 gallon underground tank - 8000

2000 gallon underground tank - Sludge (H<sub>2</sub>O - mixture)

Indicate:

X Violations

Indicate:

X Satisfactory  
NA Not Applicable

Tank General Operating Requirements - 373-3.10(b)

3.        Hazardous wastes or treatment reagents are not placed in a tank, if they could cause the tank or its inner liner to rupture, leak, corrode, or otherwise fail before the end of its intended life - 373-3.10(b)(2). If so, please explain. X
4.        Uncovered tanks have at least 60 centimeters (2 feet) of freeboard or an adequate containment structure - 373-3.10(b)(3) NA
5.        Where waste is continuously fed into a tank, the tank must be equipped with a means to stop the inflow (e.g., bypass system to a standby tank or a waste feed cutoff system) - 373-3.10(b)(4) X

Tank Waste Analysis - 373-3.10(c)

6.        There is a waste analysis plan (Complete Appendix A, Number 4) if tank is to be used to chemically treat or store a hazardous waste substantially different from the previous waste, or if a different process is used from the previous process. NA

Tank Inspections - 373-3.10(b)

7. Tank(s) are inspected each operating day for:
- (A)        discharge control equipment (e.g., waste feed cutoff systems, bypass systems and drainage systems) - 373-3.10(d)(1)(i) X
- (B)        monitoring equipment (e.g., pressure and temperature gauges) - 373-3.10(d)(1)(ii) X
- (C)        level of waste in tank to ensure proper freeboard - 373-3.10(d)(1)(iii) X
8. Tank(s) are inspected weekly for:
- (A)        Corrosion or leaking of fixtures or seams - 373-3.10(d)(iv) X
- (B)        Erosion or obvious signs of leakage (e.g., wet spots or dead vegetation) of the construction materials of, and the area immediately surrounding discharge confinement structures (e.g., dikes). 373-3.10(d)(v) X

Indicate:

X Violations

Indicate:

X Satisfactory  
NA Not Applicable

Ignitable or reactive wastes - 373-3.10(f)

9.        Ignitable or reactive waste is placed in a tank and the waste is stored, treated, rendered or mixed before or immediately after placement in the tank so that the resulting wastes, mixture or dissolution of material is no longer ignitable or reactive. NA
10.        Ignitable and reactive waste is stored in a tank and the tank is used solely for emergencies. NA
11.        Storage of ignitable or reactive waste in covered tanks complies with the National Fire Protection Association's (NFPA's) buffer zone requirements for tanks, contained in Tables 2-1 thru 2-6 of the "Flammable and Combustible Code, 1977." NA

Incompatible wastes - 373-3.10(g)

12.        Incompatible wastes, or incompatible wastes and materials must be placed in the same tank unless 373-3.2(h)(2) is complied with. 373-3.10(g)(1) NA
13.        Incompatible wastes must not be placed in an unwashed tank which previously held an incompatible waste or material unless 373-3.2(h)(2) is complied with. 373-3.10(g)(2) NA

Special Requirements in Kings, Queens, Nassau and Suffolk Counties  
- 373-3.10(h)

14.        The base underlying the tank is free of cracks and is sufficiently impervious to contain leaks. /
15.        The base is designed to drain or the tank is elevated to prevent contact with accumulated liquids. X
16.        Containment system can contain at least 110 percent of tank volume. X
17.        Run-on into containment system is prevented or designed for. /
18.        Leaked waste or accumulated precipitation is timely removed to prevent possible overflow. X

Indicate:

X Violations

Indicate:

X Satisfactory  
NA Not Applicable

4. Manifest Records - 372.2(b)

- A.        It appears, from the available information, that         
there is a manifest copy available for each hazardous waste  
shipment off-site that has been made - 372.2(b)(5)(i).

If "violation" checked or "don't know," please elaborate.

- B. Describe the approximate size of an average shipment made and  
how many shipments per month?

5 - 50, five gallon drums

- C. Each manifest (a representative sample) has the following  
information: - 372.2(b)(1); Appendix 30

	Generator	Transporter 1	Transporter 2	TSDF	
1. <u>      </u> Name of	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
2. <u>      </u> EPA ID No. of	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
3. <u>      </u> Mailing Address of	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
4. <u>      </u> Telephone No. of	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
5. <u>      </u> Manifest Document No.	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
6. <u>      </u> The proper USDOT description.					<u>      </u>
7. <u>      </u> The appropriate <u>      </u> quantity, <u>      </u> container no. <u>      </u> container type, and <u>      </u> waste type by units of weight or volume.					
8. <u>      </u> Signed certification that the materials are properly classified, described, packaged, marked and labeled, and are in proper con- dition for transportation under regulations of the USDOT and NYSDEC - 372.2(a)(4) and 372.2(a)(5) and 372.2(a)(6).					<u>      </u>
9. <u>      </u> Signed copies of the manifest records have been retained at the facility for at least three years - 372.2(c)(1)(i)					<u>      </u>

Indicate:

X Violations

Indicate:

X Satisfactory  
NA Not Applicable

- D.      There is written communication that the designated treatment, storage or disposal facility is an authorized treatment, storage or disposal facility for the particular wastes being offered for shipment and has capacity to accept the hazardous waste set forth on the manifest and will assure the ultimate disposal method is followed. 372.2(b)(2)(i) X
- E.      The generator must distribute copies of the manifest as specified on the manifest form - 372.2(b)(3) X
- F. International shipments - 372.5
- (1)      EPA has been notified four weeks prior to shipment of hazardous waste destined for treatment, storage or disposal outside the United States - 372.5(b)(1) N/A
- (2)      Delivery of the wastes has been confirmed within 90 days of acceptance of initial transporter - 372.5(b)(2) N/A
- (3)      The generator has identified the point of departure from the United States through which the waste must travel before entering a foreign country - 372.5(b)(3)(ii) N/A
- G.      Has complied with interstate shipments - 372.6 N/A
- H.      Has complied with shipments by rail or water (bulk) - 372.7 N/A
- I. X Copies of all records have been kept for at least three years (e.g., annual reports, manifests, exception reports, sampling data) - 372.2(c)(1)(i), (ii), and (iii).
- J.      All records required under this subdivision were furnished upon request, or made available at a reasonable time for inspection - 372.2(c)(1)(iv) X
- K. X The generator has received signed copies (from the TSD facility) of all manifests for wastes shipped off-site more than 20 days ago:       
1984 Manifests Missing TSD Facility Signatures.
- X If not, exception reports have been submitted covering these shipments - 372.2(c)(3)



Indicate:

X Violations

Indicate:

X Satisfactory

NA Not Applicable

5. Personnel Training - 372.2(a)(8)(ii) and 373-3.2(g)

A. There is a:

☒ written description of the job title for each position at the facility related to hazardous waste management and name of the employee filling each job - 373-3.2(g)(4)(i) \_\_\_\_\_

☒ written job description for each position 373-3.2(g)(4)(ii) \_\_\_\_\_

☒ written description of the type and amount of both introductory and continuing training that will be given to each person related to hazardous waste management - 373-3.2(g)(4)(iii) \_\_\_\_\_

☒ Records that document the training or job experience required 373-3.2(g)(4)(iv) \_\_\_\_\_

B. ☒ The training program is directed by a person trained in hazardous waste management procedures and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed. 373-3.2(g)(1)(i),(ii) and (iii). The components are: \_\_\_\_\_

(1) \_\_\_\_\_ Procedures for using, inspecting, repairing and replacing facility emergency and monitoring equipment; \_\_\_\_\_

(2) \_\_\_\_\_ Key parameters for automated waste feed cutoff systems; \_\_\_\_\_

(3) \_\_\_\_\_ Communications or alarm systems; \_\_\_\_\_

(4) \_\_\_\_\_ Response to fires and explosions; \_\_\_\_\_

(5) \_\_\_\_\_ Response to groundwater contamination incidents; and \_\_\_\_\_

(6) \_\_\_\_\_ Shutdown of operations. \_\_\_\_\_

C. ☒ Facility personnel have successfully completed the program by the effective date of these regulations or six months after the date of their employment. 373-3.2(g)(2) \_\_\_\_\_

D. ☒ Facility personnel have taken part in an annual review of the initial training required. 373-3.2(g)(3) \_\_\_\_\_

Indicate:

X Violations

Indicate:

X Satisfactory  
NA Not Applicable

- E. X Training records on current personnel have been kept permanently at the facility (until closure). 373-3.2(g)(5) \_\_\_\_\_
- F. X Training records on former employees have been kept for at least three years from the date the employee last worked at a facility. 373-3.2(g)(5) \_\_\_\_\_

6. Preparedness and Prevention - 372.2(a)(8)(ii); 373-3.3

- A. \_\_\_\_\_ The facility is maintained and operated to minimize the possibility of a fire or explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water - 373-3.3(b) X
- B. The facility must be equipped with the following (Check missing equipment if needed in this facility's particular operations.) - 373-3.3(c)
- (1) X An internal communication or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel; \_\_\_\_\_  
*Storage Area*
- (2) X A device, such as a telephone or a hand-held, two-way radio capable of summoning emergency assistance from local police departments, fire departments or state or local emergency response teams; \_\_\_\_\_  
*Storage Area*
- (3) X Portable fire extinguishers, fire control equipment. \_\_\_\_\_  
*Storage Area*
- (4) \_\_\_\_\_ Water at adequate volume and pressure to supply water hose streams, or foam-producing equipment, or automatic sprinklers, or water spray systems. X
- C. \_\_\_\_\_ Facility communications or alarm systems, fire protection equipment, and spill control equipment are tested and maintained as necessary to assure their proper operation in time of emergency - 373-3.3(d) X
- D. X Personnel involved in hazardous waste operations have immediate access to an internal alarm or emergency communication device 373-3.3(e) \_\_\_\_\_  
*Storage Area*
- E. X The facility has the required aisle space - 373-3.3(f) \_\_\_\_\_  
(Inspections should be able to be made of each drum and space should be sufficient to fight a fire).

Indicate:

X Violations

Indicate:

X Satisfactory  
NA Not Applicable

F. The facility owner or operator has made an attempt in good faith to make the following arrangements with local authorities, as appropriate for the type of waste handled at the facility and the potential need for the services of these organizations - 373-3.3(g)(1):

- (1) ☐ Arrangements to familiarize police, fire departments and emergency response teams with the functions and layout of the facility; X
- (2) ☐ Where more than one police and fire department might respond to an emergency, an agreement designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to primary emergency authority; X
- (3) ☐ Agreements with government emergency response teams, emergency response contractors, and equipment suppliers; X
- (4) ☐ Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illness which could result from fires, explosions or releases at the facility; and X
- (5) ☐ Where state or local authorities decline to enter into such arrangements, the owner or operator has documented the refusal in the operating record. NA/17

7. Contingency Plan and Emergency Procedures - 372.2(a)(8)(ii); 373-3.4

A. ☐ The facility has a contingency plan - 373-3.4(b)(1) X

B. The following are included in the contingency plan - 373-3.4(c)

- (1) ☐ A description of actions facility personnel must take in response to fires, explosions or any unplanned sudden or non-sudden releases of hazardous waste or hazardous waste constituents to air, soil or surface water; X
- (2) ☐ A spill prevention, control, and countermeasure (SPCC) plan as defined in subdivision 610.2(j) and 40 CFR 300, or some other emergency or contingency plan, amended to incorporate hazardous waste management provisions that are sufficient; X

Indicate:

X Violations

Indicate:

X Satisfactory  
NA Not Applicable

- (3) — A description of arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services; X
- (4) — Names, addresses and phone numbers of all persons qualified to act as emergency coordinator; X
- (5) — A list of all emergency equipment at the facility, and decontamination equipment, where this equipment is required; X
- (6) — The location and the physical description of each item on the list, and a brief outline of its capabilities; X
- (7) — An evacuation plan for facility personnel, where there is a possibility that evacuation could be necessary. X
- C. — Copies of the contingency plan are maintained at the facility - 373-3.4(d)(1) X
- D. — Copies of the contingency plan have been submitted to all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services - 373-3.4(d)(2) X
- E. — The contingency plan has been amended - 373-3.4(e) X
- F. — There was at least one employee either on the facility premises or on call with the responsibility for coordinating all emergency response measures - 373-3.4(f) X
- G. — During a past emergency situation the emergency coordinator (or his designee when the emergency coordinator is not on call) immediately activated emergency procedures - 373-3.4(g) 1112

The following was done:

- (1) — Activated internal facility alarms or communication systems; \_\_\_\_\_
- (2) — Notified appropriate state or local agencies; \_\_\_\_\_
- (3) — Immediately identified the character, extent, exact source, amount and areal extent of any released materials; \_\_\_\_\_
- (4) — The emergency coordinator assessed possible hazardous to human health and the environment; \_\_\_\_\_

Indicate:

X Violations

Indicate:

X Satisfactory  
NA Not Applicable

- (5) — The emergency coordinator, after determining that the facility had a release, fire or explosion which could threaten human health or the environment outside the facility, reported his findings; —
- (6) — During the emergency, the emergency coordinator took all reasonable measures necessary to ensure that fire, explosions and releases do not occur, recur or spread to other hazardous waste; —
- (7) — The emergency coordinator monitored for leaks, pressure buildup, gas generation or ruptures in valves, pipes or other equipment, where appropriate during the facility's response to the emergency; —
- (8) — The emergency coordinator provided for treating, storing or disposing of recovered waste, contaminated soil or surface water, or any other material that resulted from a release, fire or explosion at the facility; —
- (9) — The emergency coordinator ensured that in the affected area no waste that may be incompatible with the released material was treated, stored or disposed of prior to cleanup procedures being completed; —
- (10) — The emergency coordinator ensured that all emergency equipment listed in the contingency plan was cleaned and fitted for its intended use before operations were resumed; —
- (11) — The owner or operator notified the Commissioner that the facility is in compliance before operations were resumed in the affected areas of the facility; —
- (12) — The owner or operator noted in the operating record the time, date and details of the incident that required implementation of the contingency plan; —
- (13) — The owner or operator submitted a written report or complete written report on the incident within 15 days after the incident occurred. —

Attachment #1 :

Microwave Power Devices, Inc.

NY2444474680

Microwave Power Devices, Inc., is a manufacturer of microwave components. These components are cleaned, plated and surface treated on the premises. The acid/alkali and chromate rinsewaters from the plating shop and surface treatment operations are chemically treated at the facility. Approximately, 540,000 gal./yr. of rinsewater is treated. And approximately 13,000 gal./yr. of sludge is generated from this treatment system. The treated rinsewater is either reused in the facility or discharged into the Heartland Sewer System (a privately owned treatment works.) Richard Strezlek / Department of Public Works, his number is 516-422-1211, is familiar with this privately owned treatment works and the possibility of the county taking it over. The sludge is removed by a licensed hauler.

REFERENCE NO. 3

# APPLICATION FOR APPROVAL TO OPERATE A SOLID WASTE MANAGEMENT FACILITY

SEE APPLICATION INSTRUCTIONS ON REVERSE SIDE

PROJECT NO.

DATE RECEIVED

APR 8 1980

DEPARTMENT ACTION

☐ Approved ☐ Disapproved

DATE

1. OWNER'S NAME MICROWAVE POWER DEVICES, INC.	2. ADDRESS (Street, City, State, Zip Code) 330 45TH AVE., HAUPPAUGE, NY 11787	3. Telephone No. 516 231-1400
4. OPERATOR'S NAME MICROWAVE POWER DEVICES, INC.	5. ADDRESS (Street, City, State, Zip Code) 330 45TH AVE., HAUPPAUGE, NY 11787	6. Telephone No. 516 231-1400
7. ENGINEER'S NAME EA	8. ADDRESS (Street, City, State, Zip Code) N/A	9. Telephone No. N/A
10. ON-SITE SUPERVISOR ABRAHAM JAFFE	11. ADDRESS (Street, City, State, Zip Code) 23 KESWICK LANE, PLAINVIEW, NY 11803	12. Telephone No. 516 231-1400
13. HAS THE INDIVIDUAL NAMED IN ITEM 10 ATTENDED A DEPARTMENT SPONSORED OR APPROVED TRAINING COURSE? <input type="checkbox"/> Yes <u>Date</u> <u>Course Title</u> <u>Location</u> <input checked="" type="checkbox"/> No		

14. PROJECT/FACILITY NAME MICROWAVE POWER DEVICES, INC.	15. COUNTY IN WHICH FACILITY IS LOCATED SUFFOLK	16. ENVIRONMENTAL CONSERVATION REGION 1
17. TYPE OF PROJECT FACILITIES: <input type="checkbox"/> Composting <input type="checkbox"/> Transfer <input type="checkbox"/> Shredding <input type="checkbox"/> Baling <input type="checkbox"/> Sanitary Landfill <input type="checkbox"/> Incineration <input type="checkbox"/> Pyrolysis <input type="checkbox"/> Resource Recovery-Energy <input type="checkbox"/> Resource Recovery-Materials <input checked="" type="checkbox"/> Other <u>HOLD TO HAUL</u>		

18. HAS THIS DEPARTMENT EVER APPROVED PLANS AND SPECIFICATIONS AND/OR ENGINEERING REPORTS FOR THIS FACILITY? ☐ Yes Date ☒ No

19. LIST WASTES NOT ACCEPTED

NAME OF CHEMICALS USED	AMOUNT USED PER MONTH
Deoxidizer 34-M	1 1/2 Gals of each
Chromo Coat L-25	(Tanks drained & refilled approx. every 2 months. Chemicals are neutralized before draining into tank)
Amonium Persulfate	
LT-26 Tin Solution	

20. BRIEFLY DESCRIBE OPERATION

NAME OF WASTE HAULER;	COLLECTION FREQUENCY
CHEMICAL MANAGEMENT INC. 972 NICOLLS RD. DEER PARK, NY 11729	Tanks are drained approximately once per year; the capacity of our tanks is 1000 gallons. Chemicals are used for internal irriditing of parts only. We do not do outside work.

21. IF FACILITY IS A SANITARY LANDFILL, PROVIDE THE FOLLOWING INFORMATION:

a. Total useable area: (Acres) Initially <u>                    </u> Currently <u>                    </u>	b. Distance to nearest offsite, downgradient, water supply well <u>                    </u> Feet	c. No. of groundwater monitoring wells Upgradient <u>                    </u> Downgradient <u>                    </u>
---	--	---

22. INDICATE WHICH ATTACHMENTS, IF ANY, ARE INCLUDED WITH THIS APPLICATION:

<input type="checkbox"/> Form 47-19-2 or SW-7	<input type="checkbox"/> Operations Plan & Report	<input type="checkbox"/> USGS Topographic Map	<input type="checkbox"/> Record Forms	<input type="checkbox"/> Other <u>                    </u>
<input type="checkbox"/> Construction Certificate	<input type="checkbox"/> Boring Logs	<input type="checkbox"/> Water Sample Analysis	<input type="checkbox"/> None	

23. CERTIFICATION:

I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

4/1/80 Abraham Jaffe PPD MGR  
Date Signature and Title



# APPLICATION FOR APPROVAL TO CONSTRUCT A SOLID WASTE MANAGEMENT FACILITY

SEE APPLICATION INSTRUCTIONS ON REVERSE SIDE

PROJECT NO. <b>52 H 15</b>	DATE RECEIVED <b>6-8-82</b>
DEPARTMENT ACTION <input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	DATE

1. OWNER'S NAME <b>Microwave Power Devices, Inc.</b>	2. ADDRESS (Street, City, State, Zip Code) <b>330 Oak Ave. Hauppauge, N.Y. 11788</b>	3. Telephone No. <b>516/231-1400</b>
4. OPERATOR'S NAME <b>Microwave Power Devices, Inc.</b>	5. ADDRESS (Street, City, State, Zip Code) <b>330 Oak Avenue, Hauppauge, N.Y. 11788</b>	6. Telephone No. <b>516/231-1400</b>
7a. ENGINEER'S NAME <b>Donnelly Engineering</b>	8. ADDRESS (Street, City, State, Zip Code) <b>10 Jefferson Ave., St. James, N.Y. 11780</b>	9. Telephone No. <b>516/862-6767</b>

7b. ENGINEER'S N.Y.S. LICENSE NO. <b>NY46645</b>	10. TYPE OF PROJECT FACILITIES: <input type="checkbox"/> Composting <input type="checkbox"/> Transfer <input type="checkbox"/> Shredding <input type="checkbox"/> Baling <input type="checkbox"/> Sanitary Landfill <input type="checkbox"/> Incineration <input type="checkbox"/> Pyrolysis <input type="checkbox"/> Resource Recovery-Energy <input type="checkbox"/> Resource Recovery-Materials <input checked="" type="checkbox"/> Other <b>Private Industrial</b>
---	---

11. Briefly describe the project including the basic process and major components:  
**Construction of a wastewater treatment system, and a plating/etching shop.**

12. Describe location of facility. (Attach a USGS Topographic Map showing the exact location of the facility)  
**Facility is located within an existing industrial park in Hauppauge**

13. County in which facility is located: <b>Suffolk</b>	14. Environmental Conservation Region in which facility is located: <b>1</b>
--	---

15. Municipalities Served by Facility	County	No. of Municipalities
<b>N/A</b>	<b>Suffolk</b>	<b>1</b>

16. Describe briefly how the proposed facility relates to the Comprehensive Solid Waste Management Plan for the Municipality. Explain any deviation from that Plan.  
**N/A**

17. If the facility is other than a sanitary landfill, describe the residues in terms of quantities and types. Also indicate the methods and locations of residue disposal or, if recyclable, indicate markets:	Quantities	Disposal Method
1) Treated acid/alkali & chromate wastewater	1500 gpd	To sewer system
2) Treated static rinses & spent plating baths	40 gpd	Hold for Scav. Material
3) Wastewater treatment sludge	45 gpd	Hold for Scav. Material

18. If the facility is a sanitary landfill, provide the following information:	
a. Total useable area — _____ Acres	e. Distance to nearest airport — _____ miles
b. Distance to nearest surface water — _____ Feet	f. Expected life of site — _____ years
c. Depth to nearest ground water — _____ Feet	g. Is site on a flood plain? <input type="checkbox"/> Yes _____ Year Flood <input type="checkbox"/> No
d. Depth to nearest rock — _____ Feet	h. Predominant type of soil on site: _____ (Use Unified Soil Classification System)

19. Anticipated construction starting and completion dates	20. Estimated Population Served
From <b>June 1982</b> To <b>October 1982</b>	Current <b>N/A</b> Design _____

21. Estimated Cost	22. Estimated Daily Tonnages of Solid Waste Generation or Waste
Initial <b>\$3,000,000</b> Annual <b>\$100,000</b>	Current <b>N/A</b> Design <b>Approx. 1600 gal/day</b>

23. Operating Hours per Day <b>Monday-Friday; 2-hours per day</b>	24. Are attached plans and specifications in substantial conformance with "Content Guidelines for Plans and Specifications"? <input type="checkbox"/> Yes <input type="checkbox"/> No
--	---

25. CERTIFICATION:  
 I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Date

Signature and Title

# APPLICATION FOR APPROVAL TO OPERATE A SOLID WASTE MANAGEMENT FACILITY

SEE APPLICATION INSTRUCTIONS ON REVERSE SIDE

PROJECT NO. <b>52 H 15</b>	DATE RECEIVED <b>6-8-82</b>
DEPARTMENT ACTION <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved	DATE

1. OWNER'S NAME <b>Micro Power Devices, Inc.</b>	2. ADDRESS (Street, City, State, Zip Code) <b>330 Oser Avenue, Hauppauge, N.Y. 11788</b>	3. Telephone No. <b>516/231-1400</b>
4. OPERATOR'S NAME <b>Micro Power Devices, Inc.</b>	5. ADDRESS (Street, City, State, Zip Code) <b>330 Oser Avenue, Hauppauge, N.Y. 11788</b>	6. Telephone No. <b>516/231-1400</b>
7. ENGINEER'S NAME <b>Donnelly Engineering</b>	8. ADDRESS (Street, City, State, Zip Code) <b>10 Jefferson Ave. St. James, N.Y. 11780</b>	9. Telephone No. <b>516/862-6767</b>
10. ON-SITE SUPERVISOR <b>Michael Cannizzaro</b>	11. ADDRESS (Street, City, State, Zip Code) <b>330 Oser Avenue, Hauppauge, N.Y. 11788</b>	12. Telephone No. <b>516/231-1400</b>

13. HAS THE INDIVIDUAL NAMED IN ITEM 10 ATTENDED A DEPARTMENT SPONSORED OR APPROVED TRAINING COURSE?  
☐ Yes ☒ No  
 Date \_\_\_\_\_ Course Title \_\_\_\_\_ Location \_\_\_\_\_

14. PROJECT/FACILITY NAME <b>Micro Power Devices, Inc.</b>	15. COUNTY IN WHICH FACILITY IS LOCATED: <b>Suffolk</b>	16. ENVIRONMENTAL CONSERVATION REGION <b>1</b>
---	--	---

17. TYPE OF PROJECT FACILITIES: ☐ Composting ☐ Transfer ☐ Shredding ☐ Baling ☐ Sanitary Landfill ☐ Incineration ☐ Pyrolysis  
☐ Resource Recovery-Energy ☐ Resource Recovery-Materials ☒ Other **Industrial Hold to Haul and/or Seaw Discharge**

18. HAS THIS DEPARTMENT EVER APPROVED PLANS AND SPECIFICATIONS AND/OR ENGINEERING REPORTS FOR THIS FACILITY? ☐ Yes ☒ No  
 Date \_\_\_\_\_

19. LIST WASTES NOT ACCEPTED

Treated rinsewater from plating and surface treatment operations:	375,000 gal/yr
Sludge generated from wastewater treatment system:	11,250 gal/yr
Static rinsewater & spent plating baths from plating operation:	10,000 gal/yr

20. BRIEFLY DESCRIBE OPERATION

**Micro Power Devices, Inc., is a manufacturer of microwave components for the electronics industry. These components are cleaned, plated and surface treated on the premises. A portion of the wastewater generated will be chemically treated so that it will be suitable for either reuse within the facility or discharge into the Heartland Sewer System, a privately owned treatment works serving the industrial park. The untreated static rinses and spent plating baths from the plating operation will be held for hauling by an approved scavenger.**

The total storage tank volume for hazardous wastes:

Static rinses & spent plating baths - 1000 gal.	Collection Frequency
Treatment sludge - 3000 gal.	10 times per year
	4 times per year

There is no drum storage planned at Micro Power Devices at the present time.

Scavenger: **Chemical Waste Management, Farmingdale.**

RECEIVED

JUN - 8 1982

ENVIRONMENTAL QUALITY  
REGION 1

21. IF FACILITY IS A SANITARY LANDFILL, PROVIDE THE FOLLOWING INFORMATION:

a. Total useable area: (Acres) Initially _____ Currently _____	b. Distance to nearest offsite, downgradient, water supply well _____ Feet	c. No. of groundwater monitoring wells Upgradient _____ Downgradient _____
---	--	---

22. INDICATE WHICH ATTACHMENTS, IF ANY, ARE INCLUDED WITH THIS APPLICATION:

<input type="checkbox"/> Form 47-19-2 or SW-7	<input type="checkbox"/> Operations Plan & Report	<input type="checkbox"/> USGS Topographic Map	<input type="checkbox"/> Record Forms	<input checked="" type="checkbox"/> Other <b>Permit Questionnaire</b>
<input type="checkbox"/> Construction Certificate	<input type="checkbox"/> Boring Logs	<input type="checkbox"/> Water Sample Analysis	<input type="checkbox"/> None	<input type="checkbox"/> Other <b>Drawings &amp; Sketches</b>

23. CERTIFICATION:

I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Date \_\_\_\_\_ Signature and Title \_\_\_\_\_

REFERENCE NO. 4

NAME : MICROWAVE POWER DEVICES, INC.  
330 OSER AVE.  
HAUPPANGE, NY 11787

SIGNATURE

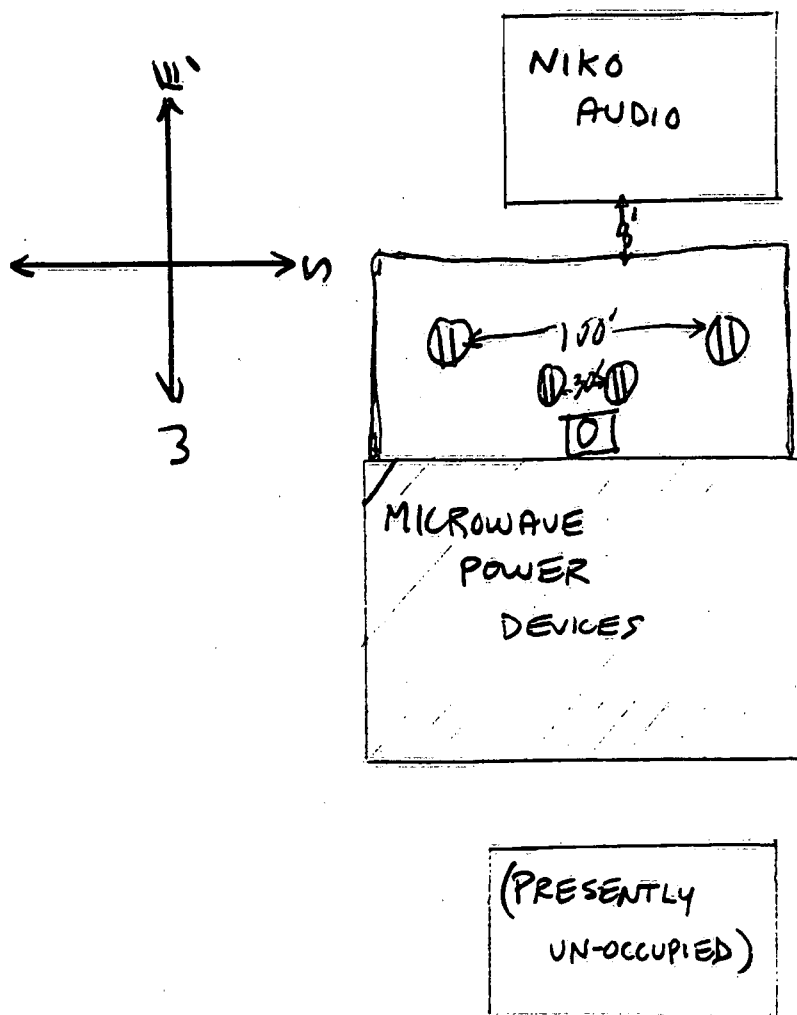
TITLE

DATE

Production Manager

3/3/82

OLD WILLETS PATH



OSER AVE

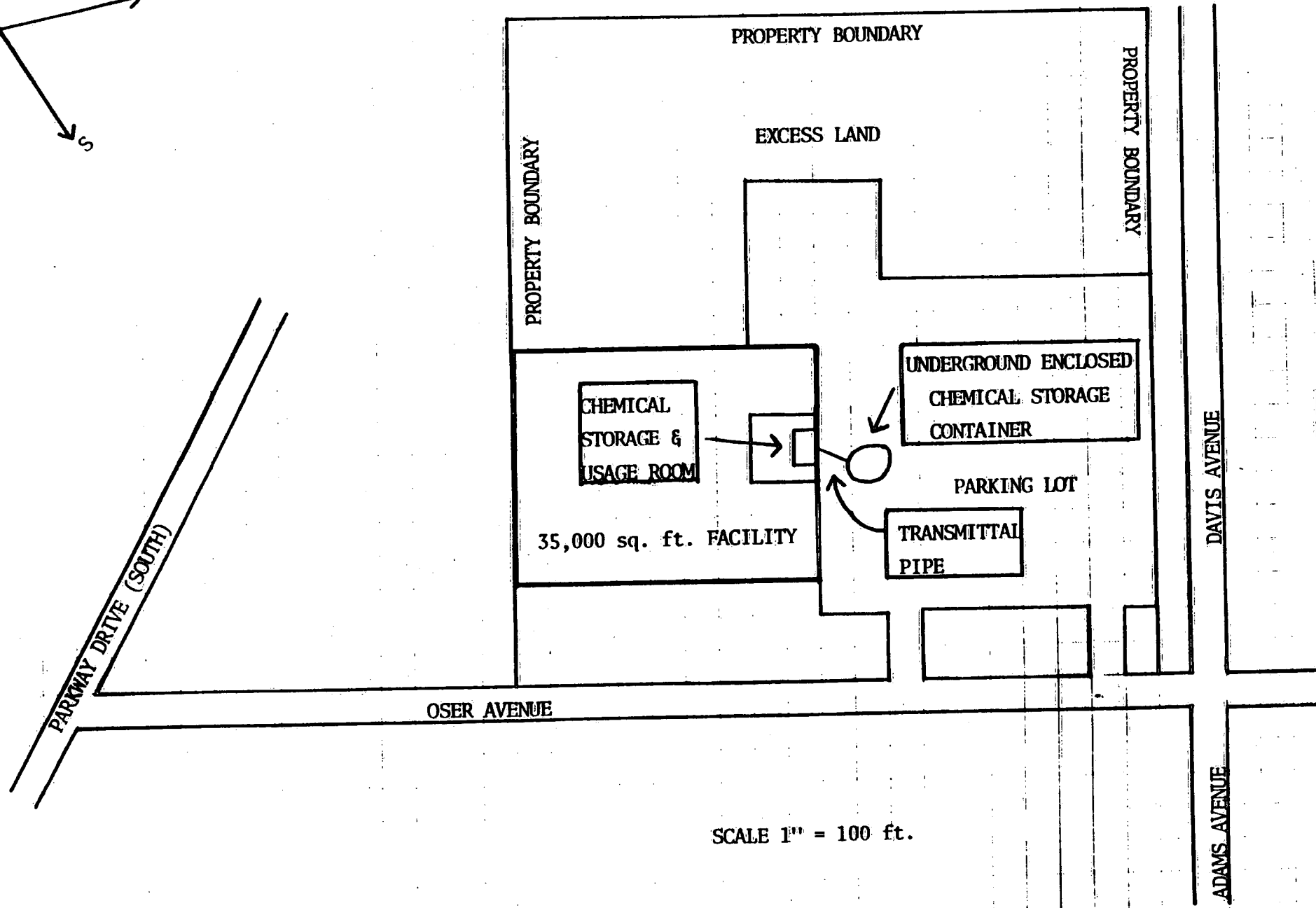
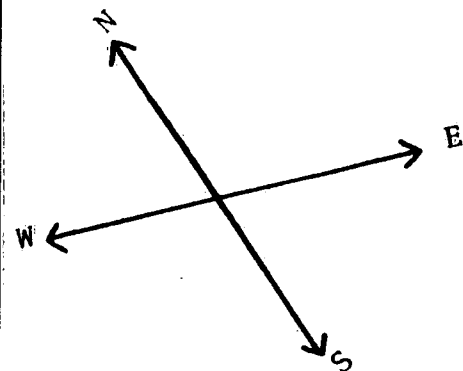
MARCUS BLVD.

WORLD-WIDE  
DISTRIBUTING

BROADLINE  
ELECTRONICS

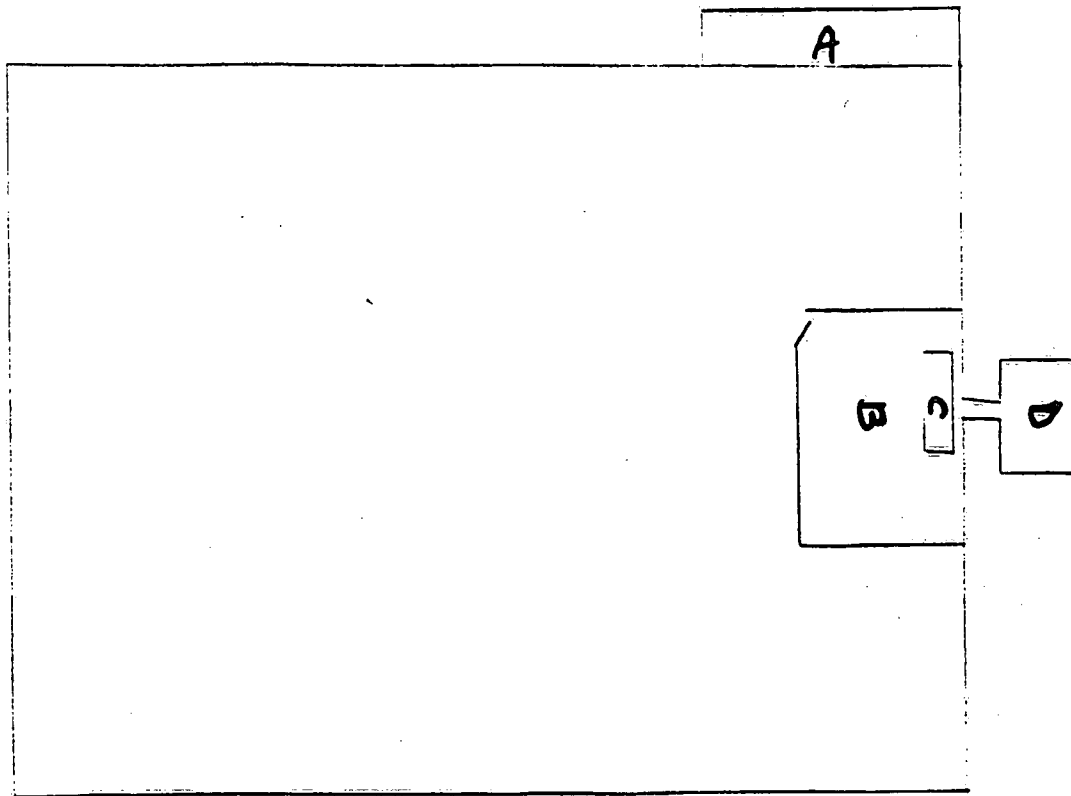
No Sanitary Casspools  
Ind. Park STP!  
(2) Floor drains connect  
to STP

PLOT  
SKETCH



# MATERIALS FLOW SKETCH

APR 9 1980



A - Loading Dock.

B - Irridite Room.

C - Irridite Chemical Tank.

D - Sealed chemical waste storage tank.

## MATERIALS FLOW DESCRIPTION

Chemicals used are new, received in containers ranging from 1 gallon to 5 gallons. Materials are received at loading dock and transported intact to irridite room where chemicals are mixed into irriditing dip tank. Tanks are drained via sealed pipes to waste storage tank which is located  $\approx$  5 feet underground outside of building. Waste materials are pumped out by NY. State approved waste collector approximately once per year.

REFERENCE NO. 5

52 H 5  
APR 9 1980

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PROJECT PERMIT REQUIREMENT QUESTIONNAIRE

The purpose of this questionnaire is to assist the applicant in determining what, if any Department Permits or approvals must be obtained before starting work on a proposed project. If you are not sure if the action proposed is a regulated activity or is within an area subject to Department regulations (tidal wetlands, freshwater wetlands, etc.) contact our regional office for clarification. A pre-application conference with our staff to obtain guidance in the Department's permit application review process can be arranged.

ANSWER ALL QUESTIONS

NAME OF APPLICANT: MICROWAVE POWER DEVICES, INC.

DETAILED PROJECT DESCRIPTION & LOCATION: 330 OSER AVE HAUPPANGE NY 117

	YES	NO	NOT KNOWN
1. <u>Realty Subdivision Approvals in Nassau County</u> Does project involve subdivision of land into 5 or more residential lots that will be served by a public or community sewage disposal system?		<input checked="" type="checkbox"/>	
2. <u>Mining Permit</u> Does project involve the mining and commercial sale or off-site use of 1,000 tons of mineral within 12 calendar months (excepting excavation or grading in connection with on site construction or farming)?		<input checked="" type="checkbox"/>	
3. <u>Air Contamination Permit</u> a) <u>New or Modified Sources:</u> Does project involve the construction, modification or operation of a boiler greater than 1 million BTU/hr rated heat input, an incinerator or an industrial process.		<input checked="" type="checkbox"/>	
b) <u>Indirect Source:</u> Does project involve construction or modification of a highway, airport or a parking facility with 250 or more spaces?		<input checked="" type="checkbox"/>	
4. <u>Solid Waste Management Permit</u> Does project involve the storage, transfer, processing or disposal of solid waste?		<input checked="" type="checkbox"/>	
5. <u>Wild, Scenic &amp; Recreational Rivers Permit</u> Only applies to certain lands within a 1/4 mile of the Carmans River. Consult D.E.C. Regional Office for exact determination.		<input checked="" type="checkbox"/>	
6. <u>Water Supply Permit</u> Does project involve the acquisition of land or construction of facilities for water supply or distribution purposes?		<input checked="" type="checkbox"/>	
7. <u>Long Island Well Permit</u> a) Does project involve the construction of a new well or deepening or increasing the capacity of an existing well to withdraw water at a rate greater than 45 gallons a minute?		<input checked="" type="checkbox"/>	
b) Will project require the temporary lowering of groundwater levels for construction purposes?		<input checked="" type="checkbox"/>	
8. <u>Protection of Waters</u> a) Will project change, modify or otherwise disturb the course, channel or bed of any stream classified C(T) or higher? (Consult the Regional Office for classifications).		<input checked="" type="checkbox"/>	
b) Does project involve the temporary or permanent artificial obstruction of a natural stream or watercourse?		<input checked="" type="checkbox"/>	
c) Does project involve the construction or repair of a permanent dock, pier or wharf having a top surface area more than 200-square feet?		<input checked="" type="checkbox"/>	
d) Does project involve any excavation or placing of fill in the navigable waters of the State and adjacent wetlands?		<input checked="" type="checkbox"/>	



9. Tidal Wetlands Permit

YES NO NOT KNOWN

## I. Will project be located:

- a) in tidal waters,  
 b) within 300-feet of either the landward edge of a tidal wetland boundary or a tidal body of water?

## II. Will there be any subdivision of land or physical alterations of land or water?

## Exemptions to the above regulated locations if:

- 1) Project will be located at a ground elevation of 10-feet or higher above mean sea level (excepting on the face of a bluff or cliff).  
 2) A substantial, man-made structure (such as a paved street or bulkhead) 100-feet or longer exists between the project site and tidal wetlands or tidal water. (Consult D.E.C. Regional Office if unsure.)

10. Freshwater Wetlands Permit

- a) Will project area be within, or within 100-feet of, a freshwater wetland or freshwater body of 12.4 acres or larger?  
 b) Will project involve draining, dredging, filling, excavating, erecting structures, roads, utilities or other alterations or placing any form of pollution in a wetland? (Consult D.E.C. Regional Office if unsure).

11. Section 401 - Water Quality Certification Letter  
Does project or activity require a Federal Permit or License? If so, this State certification may be required prior to Federal approval.12. State Pollutant Discharge Elimination System (SPDES) Permit

## Does project involve:

- a) A proposed subdivision of 5 or more units?  
 b) A proposed or existing discharge of 1,000 gallons per day of sewage or any discharge of industrial or other wastes to ground waters?  
 c) Any discharge of sewage, industrial or other wastes to surface water?  
 d) Any disposal of stormwater containing sewage industrial or other wastes?  
 e) Any storage and disposal of potentially toxic or hazardous wastes?

## 13. The following additional required D.E.C. permits have been applied for:

Type of Permit	Appli. No.	Application Filing Date	Applicant's Name (If different from application now being submitted.)

## 14. List all other permits, licenses or approvals required by other agencies of government:

Type of Permit or Approval	Governmental Agency	Status

I certify that the above information is correct to the best of my knowledge.

3/3/80  
DATE

SIGNATURE OF APPLICANT OR AUTHORIZED REPRESENTATIVE

SHORT ENVIRONMENTAL ASSESSMENT FORMINSTRUCTIONS:

(a) In order to answer the questions in this short EAF it is assumed that the preparer will use currently available information concerning the project and the likely impacts of the action. It is not expected that additional studies, research or other investigations will be undertaken.

(b) If any question has been answered Yes the project may be significant and a completed Environmental Assessment Form is necessary.

(c) If all questions have been answered No it is likely that this project is not significant.

(d) Environmental Assessment

1. Will project result in a large physical change to the project site or physically alter more than 10 acres of land? . . . . . ☐ Yes ☒ No
2. Will there be a major change to any unique or unusual land form found on the site? . . . . . ☐ Yes ☒ No
3. Will project alter or have a large effect on an existing body of water? . . . . . ☐ Yes ☒ No
4. Will project have a potentially large impact on groundwater quality? . . . . . ☐ Yes ☒ No
5. Will project significantly effect drainage flow on adjacent sites? . . . . . ☐ Yes ☒ No
6. Will project affect any threatened or endangered plant or animal species? . . . . . ☐ Yes ☒ No
7. Will project result in a major adverse effect on air quality? . . . . . ☐ Yes ☒ No
8. Will project have a major effect on visual character of the community or scenic views or vistas known to be important to the community? . . . ☐ Yes ☒ No
9. Will project adversely impact any site or structure of historic, pre-historic, or paleontological importance or any site designated as a critical environmental area by a local agency? . . . ☐ Yes ☒ No
10. Will project have a major effect on existing or future recreational opportunities? . . . ☐ Yes ☒ No
11. Will project result in major traffic problems or cause a major effect to existing transportation systems? . . . . . ☐ Yes ☒ No
12. Will project regularly cause objectionable odors, noise, glare, vibration, or electrical disturbance as a result of the project's operation? . ☐ Yes ☒ No
13. Will project have any impact on public health or safety? . . . . . ☐ Yes ☒ No
14. Will project affect the existing community by directly causing a growth in permanent population of more than 5 percent over a one-year period or have a major negative effect on the character of the community or neighborhood? . . ☐ Yes ☒ No
15. Is there public controversy concerning the project? ☐ Yes ☒ No

PREPARER'S SIGNATURE: William J. [Signature]TITLE: Production Manager

REPRESENTING: \_\_\_\_\_

DATE: 3/3/80

REFERENCE NO. 6



**ACKNOWLEDGEMENT OF NOTIFICATION  
OF HAZARDOUS WASTE ACTIVITY  
(VERIFICATION)**

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER

• NYD044470680

INSTALLATION ADDRESS

MICROWAVE POWER DEVICES INC.  
330 OBER AVE  
HAUPPAUGE

NY 11787

330 OBER AVE  
HAUPPAUGE

NY 11787

REFERENCE NO. 7

U.S. ENVIRONMENTAL PROTECTION AGENCY  
NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

INSTRUCTIONS: If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave Items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law (Section 3010 of the Resource Conservation and Recovery Act).

INSTALLATION'S EPA I.D. NO.

I. NAME OF INSTALLATION

II. INSTALLATION MAILING ADDRESS

III. LOCATION OF INSTALLATION

PLEASE PLACE LABEL IN THIS SPACE

## FOR OFFICIAL USE ONLY

## COMMENTS

INSTALLATION'S EPA I.D. NUMBER

APPROVED

DATE RECEIVED (yr., mo., &amp; day)

FNYD044470680

21

801120

## I. NAME OF INSTALLATION

MICROWAVE POWER DEVICES INC.

## II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX

330 OSER AVE

CITY OR TOWN

HAUPPAUGE

ST.

NY

ZIP CODE

11787

## III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER

330 OSER AVE

CITY OR TOWN

HAUPPAUGE

ST.

NY

ZIP CODE

11787

## IV. INSTALLATION CONTACT

NAME AND TITLE (last, first, &amp; job title)

CANNIZZARO MICHAEL PLANT ENG

PHONE NO. (area code &amp; no.)

516-231-1400

## V. OWNERSHIP

A. NAME OF INSTALLATION'S LEGAL OWNER

PUBLICLY OWNED COMPANY

B. TYPE OF OWNERSHIP (enter the appropriate letter into box)

F - FEDERAL  
M - NON-FEDERAL

M

## VI. TYPE OF HAZARDOUS WASTE ACTIVITY (enter "X" in the appropriate box(es))

☐ A. GENERATION☐ B. TRANSPORTATION (complete item VII)☒ C. TREAT/STORE/DISPOSE☐ D. UNDERGROUND INJECTION

## VII. MODE OF TRANSPORTATION (transporters only - enter "X" in the appropriate box(es))

☐ A. AIR☐ B. RAIL☒ C. HIGHWAY☐ D. WATER☐ E. OTHER (specify):

## VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your installation's EPA I.D. Number in the space provided below.

☒ A. FIRST NOTIFICATION☐ B. SUBSEQUENT NOTIFICATION (complete item C)

C. INSTALLATION'S EPA I.D. NO.

## IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

W	N	Y	D	0	4	4	4	7	0	6	8	0	2	1
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

## IX. DESCRIPTION OF HAZARDOUS WASTES (continued from front)

**A. HAZARDOUS WASTES FROM NON-SPECIFIC SOURCES.** Enter the four-digit number from 40 CFR Part 261.31 for each listed hazardous waste from non-specific sources your installation handles. Use additional sheets if necessary.

1 F 0 0 1	2	3	4	5	6
7	8	9	10	11	12

**B. HAZARDOUS WASTES FROM SPECIFIC SOURCES.** Enter the four-digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific industrial sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

**C. COMMERCIAL CHEMICAL PRODUCT HAZARDOUS WASTES.** Enter the four-digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31 P 0 0 1	32 U 0 0 2	33 U 1 5 9	34 U 2 2 8	35	36
37	38	39	40	41	42
43	44	45	46	47	48

**D. LISTED INFECTIOUS WASTES.** Enter the four-digit number from 40 CFR Part 261.34 for each listed hazardous waste from hospitals, veterinary hospitals, medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54
----	----	----	----	----	----

**E. CHARACTERISTICS OF NON-LISTED HAZARDOUS WASTES.** Mark "X" in the boxes corresponding to the characteristics of non-listed hazardous wastes your installation handles. (See 40 CFR Parts 261.21 - 261.24.)

☒ 1. IGNITABLE  
(D001)

☒ 2. CORROSIVE  
(D002)

☐ 3. REACTIVE  
(D003)

☒ 4. TOXIC  
(D004)

## X. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE

NAME &amp; OFFICIAL TITLE (type or print)

DATE SIGNED

MICHAEL CANNIZZARO, PLANT ENGINEER

11/6/80

REFERENCE NO. 8



U.S. ENVIRONMENTAL PROTECTION AGENCY		I. EPA I.D. NUMBER	
<b>GENERAL INFORMATION</b> (Read the "General Instructions" before starting.)		NYD 0 444 70680	
<b>GENERAL INSTRUCTIONS</b> If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate area below. If any of the information is missing, the area to the left of the label space lists the information that must be provided. If you provide it, you must complete items III, IV, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal requirements under which this data is collected.			
<b>II. POLLUTANT CHARACTERISTICS</b> INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any question, you must submit the form and the supplemental form listed in the parentheses following the question. If you answer "no" to the question, the supplemental form is not attached. If you answer "no" to any question, you need not submit any of these forms. If you answer "no" to any question, you are excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.			
<b>A. Does or will this facility treat, store, or dispose of hazardous waste? (FORM 2)</b>		<b>B. Is this a facility which currently discharges or discharges to waters of the U.S. other than those described in A or B above? (FORM 2)</b>	
<b>C. Does or will this facility treat, store, or dispose of hazardous waste? (FORM 2)</b>		<b>D. Is this a proposed facility other than those described in A or B above which will result in a discharge to waters of the U.S.? (FORM 2)</b>	
<b>E. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, other than water for enhanced recovery of oil or natural gas, or inject water for storage of liquid hydrocarbons? (FORM 4)</b>		<b>F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)</b>	
<b>G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, other than water for enhanced recovery of oil or natural gas, or inject water for storage of liquid hydrocarbons? (FORM 4)</b>		<b>H. Do you or will you inject at this facility fluid for special processes such as mining of sulfur by the Frasch process, extraction mining of minerals, in the distribution of fuel gas, or recovery of geothermal energy? (FORM 4)</b>	
<b>I. Is this facility a proposed stationary source which is NOT one of the 25 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any of pollutants regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 6)</b>		<b>J. Is this facility a proposed stationary source which is NOT one of the 25 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any of pollutants regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 6)</b>	

NAME OF FACILITY	
MICROWAVE POWER DEVICES INC	
<b>IV. FACILITY CONTACT</b> NAME & TITLE: MICHAEL CANNIZZARO PLANT ENG ADDRESS: 330 OSER AVE CITY: HAUPPAUGE NY 11788 STATE: NY ZIP: 11788	

NAME OF FACILITY	
MICROWAVE POWER DEVICES INC	
<b>IV. FACILITY CONTACT</b> NAME & TITLE: MICHAEL CANNIZZARO PLANT ENG ADDRESS: 330 OSER AVE CITY: HAUPPAUGE NY 11788 STATE: NY ZIP: 11788	

CONTINUED FROM THE FRONT

I. SIC CODES (4-digit, in order of priority)

A. FIRST		B. SECOND	
3662 (specify)	7 (specify)		
C. THIRD		D. FOURTH	
	7 (specify)		

III. OPERATOR INFORMATION

A. NAME		B. Is the name listed in Item VIII-A also the name of the facility?
MICROWAVE POWER DEVICES INC		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify)		D. PHONE (area code & number)
F - FEDERAL S - STATE P - PRIVATE	M - PUBLIC (other than federal or state) O - OTHER (specify) P (specify)	516 231 1400

E. STREET OR P.O. BOX	F. CITY	G. STATE	H. ZIP CODE
30 OSER AVE	HAUPPAUGE	NY	11788

I. INDIAN LAND	J. Is the facility located on Indian lands?
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

K. EXISTING ENVIRONMENTAL PERMITS	
1. State (Name of State)	2. Year (Date of Issuance from Proposed Source)
NY	1978
3. Type (Name of Permit)	4. Other (Specify)
UIC (Underground Injection of Fluids)	
5. State (Name of State)	6. Other (Specify)
NY	

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its intake and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements. F9: H/50

L. NATURE OF BUSINESS (provide a brief description)

Manufacturer of R.F. solid state telecommunication equipment

F9: A  
51

NOTIFICATION AND ACTION REQUIRED BY THE APPLICANT: The applicant is responsible for providing the information and data required for the preparation and submission of the application. The applicant is also responsible for providing the information and data required for the preparation and submission of the application. The applicant is also responsible for providing the information and data required for the preparation and submission of the application.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
MICHAEL CANNIZZARO		6/16/81

**CONTINUE ON REVER**

**PROCESSES (continued)**

SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES (code "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

**DESCRIPTION OF HAZARDOUS WASTES**

**A. EPA HAZARDOUS WASTE NUMBER** - Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

**ESTIMATED ANNUAL QUANTITY** - For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

**UNIT OF MEASURE** - For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

**ENGLISH UNIT OF MEASURE**      **CODE**  
 POUNDS.....P  
 TONS.....T

**METRIC UNIT OF MEASURE**      **CODE**  
 KILOGRAMS.....K  
 METRIC TONS.....M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

**PROCESSES****1. PROCESS CODES:**

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

**2. PROCESS DESCRIPTION:** If a code is not listed for a process that will be used, describe the process in the space provided on the form.

**NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER** - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

**EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below)** - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				Included with above

NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

EPA I.D. NUMBER (enter from page 1)										FOR OFFICIAL USE ONLY									
W N Y D 0 4 4 4 7 0 6 8 0 3 1										W DUP 3 2 DUP									
IV. DESCRIPTION OF HAZARDOUS WASTES (continued)										D. PROCESSES									
WASTE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	1. PROCESS CODES (enter)				2. PROCESS DESCRIPTION (If code is not entered in D(1))											
				17	18	19	20	21	22	23	24								
1	F 0 0 1	500 000	P	D	8	3													
2	P 0 0 1	500 000	P	D	8	3													
3	U 0 0 2	250 000	P	D	8	3													
4	U 1 5 9	300 000	P	D	8	3													
5	U 1 6 0	100 000	P	D	8	3													
6	P 0 0 6	400 000	P	D	8	3													
7	U 1 3 4	4750 000	P	D	8	3													
8																			
9																			
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22																			
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24																			
25																			
26																			

**DESCRIPTION OF HAZARDOUS WASTES (continued)**  
**USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.**

EPA I.D. NO. (enter from page 1)											
N	Y	D	0	4	4	4	7	0	6	8	0
										3	6

F6: <sup>A</sup>/<sub>55</sub>

F6: <sup>N</sup>/<sub>56</sub>

**V. FACILITY DRAWING**  
All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

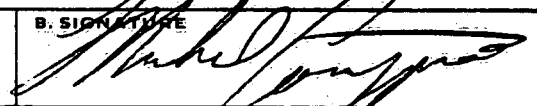
**VI. PHOTOGRAPHS**  
All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

LATITUDE (degrees, minutes, & seconds)												LONGITUDE (degrees, minutes, & seconds)											

**VII. FACILITY OWNER**  
☒ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.  
B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER												2. PHONE NO. (area code & no.)																																			
3. STREET OR P.O. BOX												4. CITY OR TOWN												5. ST.												6. ZIP CODE											

**IX. OWNER CERTIFICATION**  
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
MICHAEL CANNIZZARO		6/16/81

**X. OPERATOR CERTIFICATION**  
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED

REFERENCE NO. 9

12/16/81

I called Mr. Cannizzaro, facility contact at Microwave Power. I asked him to describe the HW activities at the facility, since the application is confusing (the surface impoundment D083 is not shown on the facility drawing).

He said that the hazardous wastes are neutralized and then stored in a 850 gal. underground tank which is pumped out by a hooter. The codes for container storage and surface impoundment are erroneous. However, a large plant expansion is in progress which will include new plating operations. A waste treatment plant is being built for this operation. Donnelly Engineering is designing the system and will be submitting a revised Part A. The wastewater from the treatment plant will be recycled when possible. However, the ~~excess~~ excess will be stored to be hauled away. I stated that the topographic map and photos required in the application were not submitted. He said he would inform Donnelly to put them in the revised application.

J. Joseph

Solid Waste Branch



REFERENCE NO. 10

# DONNELLY ENGINEERING

Lawrence A. Donnelly, P.E.  
CONSULTING ENGINEER

10 Jefferson Avenue  
St. James, New York 11780  
516-862-6767

June 17, 1982

USEPA  
Region II  
26 Federal Plaza  
New York, N.Y. 10278

Attn: Harry Ruisi, Permits Administration Branch

Re: Microwave Power Devices EPA ID# NYD044470680

Not on Run

Dear Mr. Ruisi:

Confirming our telecon of 6/16/82 regarding Microwave Power Devices of Hauppauge, N.Y. it is our understanding that NYSDEC and SCDPW have jurisdiction on MPD's industrial discharge to a privately owned treatment works. All necessary applications for permits to discharge will be filed directly with NYSDEC and SCDPW and USEPA has no concern over this matter.

The sludge generated by pre-treatment of industrial waste and any additional hazardous waste held on site is governed by the USEPA RCRA program. If the sludge and hazardous waste are hauled from the premises within 90 days, MPD is covered by their generator ID number and no RCRA permits are required.

We believe the above is an accurate reflection of our conversation. Please advise in writing as soon as possible if you disagree with this interpretation as we will assume the above to be true unless we are otherwise informed.

Very truly yours,

DONNELLY ENGINEERING

*Linda Ginsburg*  
Linda Ginsburg

LG/tm

cc: Abe Jaffe  
Mike Cannizzarro  
Steve Malkmes



RESOURCE CONSERVATION

REFERENCE NO. 11

**APPENDIX-B TO ENGINEERING REPORT**

**A PLAN FOR CLOSURE**

**SUBMITTED BY  
MICROWAVE POWER DEVICES, INC.  
330 OSER AVENUE  
HAUPPAUGE, NEW YORK, 11788**

**PREPARED BY  
DONNELLY ENGINEERING  
10 JEFFERSON AVENUE, ST. JAMES, NEW YORK 11780**

**JULY 1982**

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## 1.0 INTRODUCTION

Microwave Power Devices, Inc., is a manufacturer of microwave components for the electronics industry. These components are cleaned, plated and surface treated on the premises. Hazardous wastes are generated by these processes. This Plan is submitted to the New York State Dept. of Environmental Conservation as part of a complete application for a Permit to Construct and Operate a Hazardous Waste Management Facility, (Part 360 Permit). This Plan describes the procedures necessary to close the facility, and estimates the cost involved with the closure.

## 2.0 IDENTIFICATION OF HAZARDOUS WASTE STORAGE

In accordance with Part 360.8(c)(6)(ii)(2), the following list gives an estimate of the maximum inventory of waste in storage or in treatment at any one time at the facility.

- A) Wastewater from the cleaning, plating  
and surface treating processes.....3,000 gal.
- B) Sludge generated from the chemical  
treatment of wastewater from the cleaning,  
plating and surface treating processes.....3,000 gal. .
- C) Spent plating baths.....1,500 gal.
- D) Spent static rinse baths from the cleaning,  
plating and surface treating processes..... 500 gal.

### 3.0 PROCEDURES FOR CLOSURE

Closure of Microwave Power Devices, Inc. involves four major areas of concern. The first two areas are the Plating Room and the Wastewater Treatment system. In these areas all equipment must be decontaminated and all waste must be disposed of. The third area, Drum Storage, involves the removal of all hazardous waste stored in drums onsite. The last area, Outdoor Tanks, involves the decontamination of the underground tanks and related equipment.

#### 3.1 PLATING ROOM CLOSURE

The plating room consists of plating tanks, plating equipment and related mechanical equipment. The plating tank solutions will be emptied into drums for temporary storage. The rinse tank solutions will be drained to the wastewater treatment system for treatment with the effluent being discharged from the facility. The tanks will then be cleaned by an industrial tank cleaner. The industrial tank cleaning company would use a solvent or compatible detergent and water to clean the tanks. As much waste product would be pumped from the pipelines as possible. The lines would then be pressure-cleaned with water. In addition, all pipeline appurtenances, such as transfer pumps, would be cleaned by flushing with water. This wastewater will be drained to the wastewater treatment system for treatment.



### 3.2 WASTEWATER TREATMENT SYSTEM CLOSURE

The wastewater treatment system consists of wastewater storage and chemical storage tanks, wastewater clarification tanks and related equipment. All tank contents will be emptied into drums for temporary storage. The tanks will then be cleaned by an industrial tank cleaning company. The industrial tank cleaner would use a solvent or compatible detergent and water to clean the tanks. As much waste product would be pumped from the pipelines as possible. The lines will then be pressure-cleaned with water. In addition, all pipeline appurtenances, such as transfer pumps, would be cleaned by flushing with water. All wash and rinsewater from the closure operations will be removed by a licensed scavenger.

### 3.3 DRUM REMOVAL

All drums, full, part full and empty, will be transported offsite by a licensed scavenger. All storage areas will be cleaned with solvent and water until all waste residues are removed. All washwater and rinsewater generated from the closure operations will be removed by a licensed scavenger.

### 3.4 OUTDOOR TANK CLOSURE

The outdoor underground sludge storage tank and the underground

clearwell tank will be emptied of all waste product. The tanks will be cleaned with a compatible detergent solution and water by an industrial tank cleaner. All associated piping will also be cleaned.

All waste product, wash and rinsewater will be removed by a licensed scavenger. The tanks will remain intact for possible use by a future occupant of the facility.

ALL WASTE REMOVED DURING THE CLOSURE OPERATIONS WILL BE MANIFESTED IN ACCORDANCE WITH RCRA REGULATIONS.

### 3.5 CLOSURE SCHEDULE

It is anticipated that all hazardous waste would be removed from the facility within 90-days of receiving the final volume of wastewater to be treated from the plating processes. Microwave Power Devices, Inc., would complete closure within 180-days from this same date. This Closure Plan will be submitted to the Regional Administrator at least 180-days prior to commencement of Closure procedures.

#### 4.0 CERTIFICATION OF CLOSURE

When closure is complete, Microwave Power Devices will submit to the New York State Dept. of Environmental Conservation letters from Microwave Power Devices and an independent Professional Engineer certifying that the facility has been closed in accordance with the specifications of this Plan.

## 5.0 COST ESTIMATE FOR CLOSURE

The cost estimate which follows is computed on a "worst case" situation. This "worst case" cost estimate is in line with the method of cost estimating required by Para. 265.142 of the Resource Conservation and Recovery Act (RCRA). It must be realized, however, that the closure cost estimate is unrealistically high as a result.

The cost estimate shown in Table 1 reflects the maximum cost associated with facility closure.

On an annual basis, the cost estimate will be revised by multiplying the estimate by a factor for inflation. The inflation factor will be calculated by dividing the latest published annual Implicit Price Deflator for Gross National Product by the deflator for the previous year (see Para.265.142 of RCRA).

TABLE 1 - FACILITY CLOSURE COST ESTIMATE

ITEM	COST
1) Removal and disposal of all hazardous material from tanks (max. capacity) 10,000 gallons \$1.00/gal.	\$10,000
2) Tank Cleaning	5,000
3) Pipeline & pipeline equipment cleaning	3,000
4) Drum removal and disposal	2,000
5) Cleaning of storage areas	1,000
6) Disposal of all contaminated equipment from the Microwave Power Devices facility.	4,500
TOTAL	\$25,500

REFERENCE NO. 12

AKA  
Trube

# Summary of the Hydrologic Situation on Long Island, New York, as a Guide to Water-Management Alternatives

By O. L. FRANKE and N. E. McCLYMONDS

HYDROLOGY AND SOME EFFECTS OF URBANIZATION ON  
LONG ISLAND, NEW YORK

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GEOLOGICAL SURVEY PROFESSIONAL PAPER 627-F

*Prepared in cooperation with the New York  
State Department of Conservation, Division  
of Water Resources; the Nassau County  
Department of Public Works; the Suffolk  
County Board of Supervisors; and the  
Suffolk County Water Authority*



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UNITED STATES GOVERNMENT PRINTING OFFICE, WASHINGTON : 1972

glacial deposits so that the Pleistocene deposits are irregularly distributed over the Cretaceous surface, and in places the Pleistocene deposits fill valleys cut by preglacial glacial streams. These valleys have been fairly well defined in Kings and Queens Counties and along the northern margin of the island eastward to the middle of Suffolk County. In eastern Suffolk County, however, data on the contact between the Pleistocene and the Cretaceous are very sparse.

The upper surface of the Cretaceous deposits is above sea level in a large area in northern Nassau and western Suffolk Counties, and in all but a few small areas, the Pleistocene deposits cover the Cretaceous deposits throughout Long Island. Pertinent information concerning the principal hydrogeologic units within the ground-water reservoir are briefly summarized in table 2.

Ground water in the uppermost part of the zone of saturation on Long Island (mainly in the upper glacial aquifer, but locally also in the Magothy aquifer) is generally under water-table conditions. Artesian conditions predominate in most of the other parts of the ground-water reservoir of Long Island, where the saturated deposits are overlain and confined by silty and clayey layers of low hydraulic conductivity. The hydraulic head in the confined aquifers ranges from several feet below the water table to nearly 20 feet above it. At places along the north and south shores and on the barrier beaches, the head in the Lloyd aquifer is high enough to cause some wells which penetrate this aquifer to flow.

In addition to the Raritan clay, which confines water in the Lloyd aquifer, the other major well-defined confining layer in the ground-water reservoir is the Gardiners Clay. This unit locally confines water in the Jameco and Magothy aquifers. Numerous clayey and silty layers in the Magothy aquifer and clay beds in the glacial deposits also are significant confining layers. Normally, the degree of confinement in the Magothy aquifer increases with depth as more and more clayey layers intervene between the deep zone and the water table.

#### BOUNDARIES OF THE FRESH GROUND-WATER RESERVOIR

The boundaries of the fresh ground-water reservoir are the water table, the fresh-salt water interface, and the bedrock surface. The estimated average position of the water table under natural conditions is shown in figure 9. The position of the contours is based on a map of the water table in Kings, Queens, and Nassau Counties in 1903 (prepared by Veatch in 1906), and on later water-table maps of Suffolk County.

Major features of this map are the two areas of highest ground-water altitude (represented by closed 80-ft and 60-ft contours) which extend approximately westward in the north-central parts of Nassau and Suffolk Counties. Also noteworthy are the steep water-level gradients near the north shore of Long Island compared to the gradients near the south shore.

The water table, which is the upper boundary of the ground-water reservoir, is a dynamic (moveable) feature. Present information indicates that recharge to the water table occurs throughout virtually all of Long Island. Therefore, the water table is not, from the point of view of potential theory, a stream surface. It is instead a surface characterized by a constantly varying potential which is equal to the altitude of the water table at any point. Because the water table on Long Island is largely a recharging potential boundary of the ground-water reservoir, streamlines flow perpendicularly from the water table into the ground-water reservoir. Locally, as near the shorelines where ground water is lost by evapotranspiration, the water table is a discharging potential boundary.

The ground-water reservoir is bordered laterally by a second moveable boundary—the fresh-salt water interface. The position of this interface (or these interfaces) is fairly accurately known only in southwestern Nassau and southeastern Queens Counties as a result of an intensive investigation by Lusczynski and Swarzenski (1966). A north-south cross section through the ground-water reservoir in this area (fig. 10) shows three separate salt-water wedges—a shallow wedge in the glacial aquifer and intermediate and deep wedges in the Magothy aquifer. Furthermore, a fourth wedge exists in the Lloyd aquifer somewhere seaward of the barrier beaches.

The occurrence of fresh ground water in the Lloyd aquifer below salty ground water in the lower part of the Magothy aquifer has never been adequately explained. However, this occurrence must be related in some way to the relatively impermeable Raritan clay overlying the Lloyd aquifer. At least four separate wedges of salty ground water with relative positions approximately as indicated in figure 10 probably occur for a considerable distance eastward from western Nassau County (on the order of tens of miles) along the south shore of Long Island.

Very scanty information indicates that the Lloyd aquifer and the deep Magothy aquifer contain salty ground water beneath the Forks of Long Island. The fresh ground water beneath the Forks occurs in a lens ranging in thickness from a few feet to several hundred feet.



# HYDROLOGY AND SOME EFFECTS OF URBANIZATION ON LONG ISLAND, NEW YORK

underlain by terminal-moraine deposits, the depth to the water table is more than 50 feet, and in small areas the depth to the water table is more than 200 feet. Depths to the water table near the northern coast of the island generally are more than 20 feet, except adjacent to stream channels or in narrow bands near the shoreline.

## GROUND-WATER RESERVOIR

### HYDROLOGIC FEATURES OF THE GROUND-WATER RESERVOIR

The overall hydrogeologic setting of Long Island was described in considerable detail by Veatch (1906), Fuller (1914), and Suter, De Laguna, and Perlmutter (1949). The geology and related hydrology of several smaller areas of Long Island have been studied in greater detail by others, including De Laguna (1963),

Isbister (1966), Lubke (1964), Luszczynski and Swarzenski (1966), Perlmutter and Geraghty (1963), Pluhowski and Kantrowitz (1964), and Swarzenski (1963).

Long Island is underlain by consolidated bedrock, which, in turn, is overlain by a wedge-shaped mass of unconsolidated rock materials (fig. 8).<sup>1</sup> These materials, which constitute Long Island's ground-water reservoir, consist primarily of a series of Pleistocene glacial deposits and Cretaceous fluvial or deltaic deposits composed of gravel, sand, silt, clay, and mixtures thereof. The Cretaceous deposits were eroded by

<sup>1</sup> The actual dip of the upper bedrock surface is slightly less than 1° to the southeast. The much greater inclination of the bedrock surface and the Magothy aquifer shown in figure 8 is due to the large vertical-scale exaggeration of this cross section.

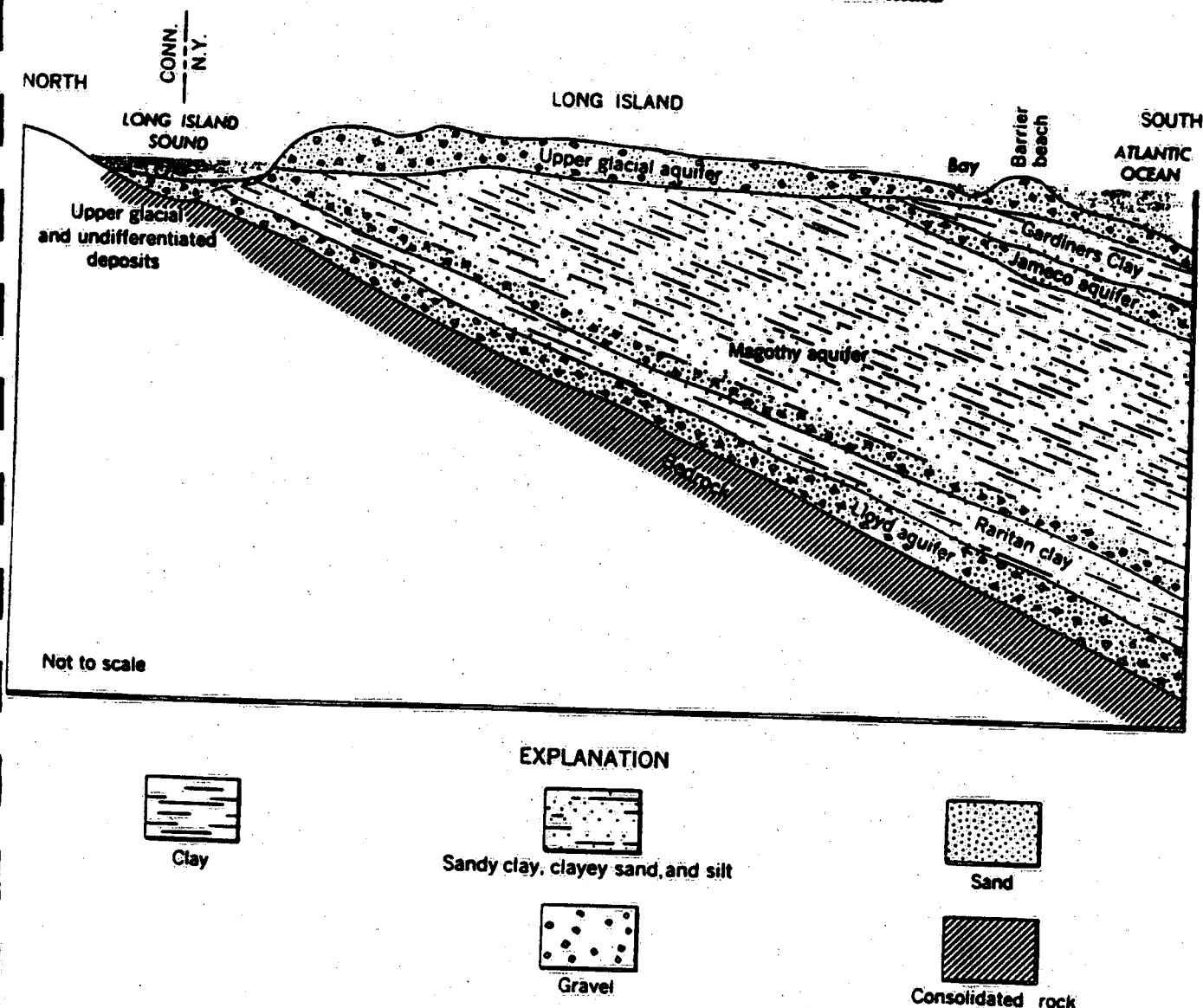


FIGURE 8.—Geologic features of the ground-water reservoir.

# HYDROLOGY AND SOME EFFECTS OF URBANIZATION ON LONG ISLAND, NEW YORK

TABLE 2.—Summary of the rock units and their water-bearing properties, Long Island, N. Y.

(After McClymonds and Franks, 1971)

System	Series	Geologic unit	Hydro-geologic unit	Approximate maximum thickness (feet)	Depth from land surface to top (feet)	Character of deposits	Water-bearing properties
Quaternary	Holocene	Artificial fill, salt marsh deposits, stream alluvium, and shoreline deposits.	Holocene deposits	50	0	Sand, gravel, clay, silt, organic mud, peat, loam, and shells. Colors are gray, brown, green, black, and yellow. Holocene artificial-fill deposits of gravel, sand, clay, and rubbish.	Permeable sandy beds beneath barrier beaches yield fresh water at shallow depths, brackish to salty water at greater depth. Clay and silt beneath bays retard salt-water encroachment and confine underlying aquifers. Stream-flood-plain and marsh deposits may yield small quantities of water, but are generally clayey or silty and much less permeable than underlying upper glacial aquifer.
	Pleistocene	Upper Pleistocene deposits	Upper glacial aquifer	500	0-50	Till (mostly along north shore and in moraines) composed of clay, sand, gravel, and boulders. Ferns Harbor (Fill) and Ronkonkoma terminal moraines. Outwash deposits (mostly between and south of terminal moraines, but also interlayered with till) consist of quartzite sand, fine to very coarse, and gravel, pebbles to boulder sized. Glaciolacustrine deposits (mostly in central and eastern Long Island) and marine clay (locally along south shore) consist of silt, clay, and some sand and gravel layers; includes "20-foot clay" in southern Nassau County and Queens County. Colors are mainly gray, brown, and yellow; silt and clay locally are grayish green. Contains shells and plant remains, generally in finer grained beds; also contains Foraminifera. Contains chlorite, biotite, muscovite, hornblende, olivine, and feldspar as accessory minerals; "20-foot clay" commonly contains glauconite.	Till is poorly permeable; commonly causes perched-water bodies and impedes downward percolation of water to underlying beds. Outwash deposits are moderately to highly permeable; specific capacities of wells tapping them range from about 10 to more than 200 gpm per foot of drawdown. Good to excellent infiltration characteristics. Glaciolacustrine and marine clay deposits are mostly poorly permeable, but locally have thin moderately permeable layers of sand and gravel; generally retard downward percolation of ground water. Contains fresh water, except near the shoreline. Till and marine deposits locally retard salt-water encroachment.
		Unconformity?					
		Gardiners Clay	Gardiners Clay	300	50-400	Clay, silt, and few layers of sand and gravel. Colors are grayish green and brown. Contains marine shells, Foraminifera, and ligules; also glauconite, locally. Altitude of top generally is 50-60 ft below mean sea level. Occurs in Kings and Queens Counties, southern Nassau County, and Suffolk County; similar clay occurs in buried valleys near north shore.	Poorly permeable; constitutes confining layer for underlying Jamaica aquifer. Locally, sand layers yield small quantities of water.
		Unconformity?					
Tertiary (?)	Pliocene (?)	Jameco Gravel	Jameco aquifer	200	50-450	Sand, fine to very coarse, and gravel to large-pebble size; few layers of clay and silt. Gravel is composed of crystalline and sedimentary rocks. Color is mostly dark brown. Contains chlorite, biotite, muscovite, hornblende, and feldspar as accessory minerals. Occurs in Kings and Queens Counties, and southern Nassau County; similar deposits occur in buried valleys near north shore.	Moderately to highly permeable; contains mostly fresh water, but brackish water and water with high iron content locally in southeastern Nassau County and southern Queens County. Specific capacities of wells in the Jameco range from about 20 to 150 gpm per foot of drawdown.
		Unconformity					
		Mannette Gravel	(Commonly included with upper glacial aquifer.)	300	0-120	Gravel, fine to coarse, and lenses of sand; scattered clay lenses. Colors are white, yellow, and brown. Occurs only near Nassau-Suffolk County border near center of island.	Highly permeable, but occurs mostly above water table. Excellent infiltration characteristics.
Cretaceous		Unconformity					
		Magothy Formation	Magothy aquifer	1,100	0-500	Sand, fine to medium, clayey in part; interbedded with lenses and layers of coarse sand and sandy and solid clay. Gravel is common in basal 50-200 ft. Sand and gravel are quartzite. Lignite, pyrite, and iron oxide concretions are common; muscovite, magnetite, rutile, and garnet are accessory minerals. Colors are gray, white, red, brown, and yellow.	Most layers are poorly to moderately permeable; some are highly permeable locally. Specific capacities of wells in the Magothy generally range from 1 to about 20 gpm per foot of drawdown; rarely are as much as 50 gpm per ft. Water is unconfined in uppermost parts, elsewhere is confined. Water is generally of excellent quality but has high iron content locally along north and south shores. Constitutes principal aquifer for public-supply wells in western Long Island, except Kings County where it is mostly absent. Has been invaded by salty ground water locally in southwestern Nassau County and southern Queens County, and in small areas along north shore.

TABLE 2.—Summary of the rock units and their water-bearing properties, Long Island, N.Y.—Continued

System	Series	Geologic unit	Hydro-geologic unit	Approximate maximum thickness (feet)	Depth from land surface to top (feet)	Character of deposits	Water-bearing properties
Cretaceous	Upper Cretaceous	Unconformity					
		Clay member	Raritan clay	300	70-1,600	Clay, solid and silty; few lenses and layers of sand; little gravel. Lignite and pyrite are common. Colors are gray, red, and white, commonly variegated.	Poorly to very poorly permeable; constitutes confining layer for underlying Lloyd aquifer. Very few wells produce appreciable water from these deposits.
		Lloyd Sand Member	Lloyd aquifer	600	200-1,800	Sand, fine to coarse, and gravel, commonly with clayey matrix; some lenses and layers of solid and silty clay; contains thin lignite layers and iron concretions locally. Locally, has gradational contact with overlying Raritan clay. Sand and most of gravel are quartzose. Colors are yellow, gray, and white; clay is red locally.	Poorly to moderately permeable. Specific capacities of wells in the Lloyd generally range from 1 to about 25 gpm per foot of drawdown, rarely are as much as 50 gpm per ft. Water is confined under artesian pressure by overlying Raritan clay; generally of excellent quality but has high iron content locally. Has been invaded by salty ground water locally in areas near north shore, where aquifer is mostly shallow and overlying clay discontinuous. Called deep confined aquifer in some earlier reports.
Precambrian		Unconformity					
		Bedrock	Bedrock	.....	0-2,700	Crystalline metamorphic and igneous rocks: muscovite-biotite schist, gneiss, and granite. A soft clayey zone of weathered bedrock locally is more than 100 ft thick.	Poorly permeable to virtually impermeable; constitutes virtually the lower boundary of ground-water reservoir. Some hard, fresh water is contained in joints and fractures, but is impracticable to develop at most places; however, a few wells near the western edge of Queens and Kings Counties obtain water from the bedrock.

The fresh-salt water interface is not a sharp boundary. The horizontal distance over which the dissolved-solids content of ground water changes from completely fresh to completely salty is generally on the order of 2-3 thousand feet near the south shore of Long Island. Over this distance, the dissolved-solids content of the ground water increases at first gradually in the direction of the salty ground water and then more rapidly.

The fresh-salt water interface is a complex streamline surface, and fresh ground water discharging into the ocean and bays moves parallel to the interface and not across it. The hydrodynamics of a stable interface and, to an even greater degree, an unstable interface that changes position in response to changes in head within the ground-water reservoir, is complicated and beyond the scope of this report. (See Lusczynski, 1961; Cooper, 1964; and Kohout, 1964.)

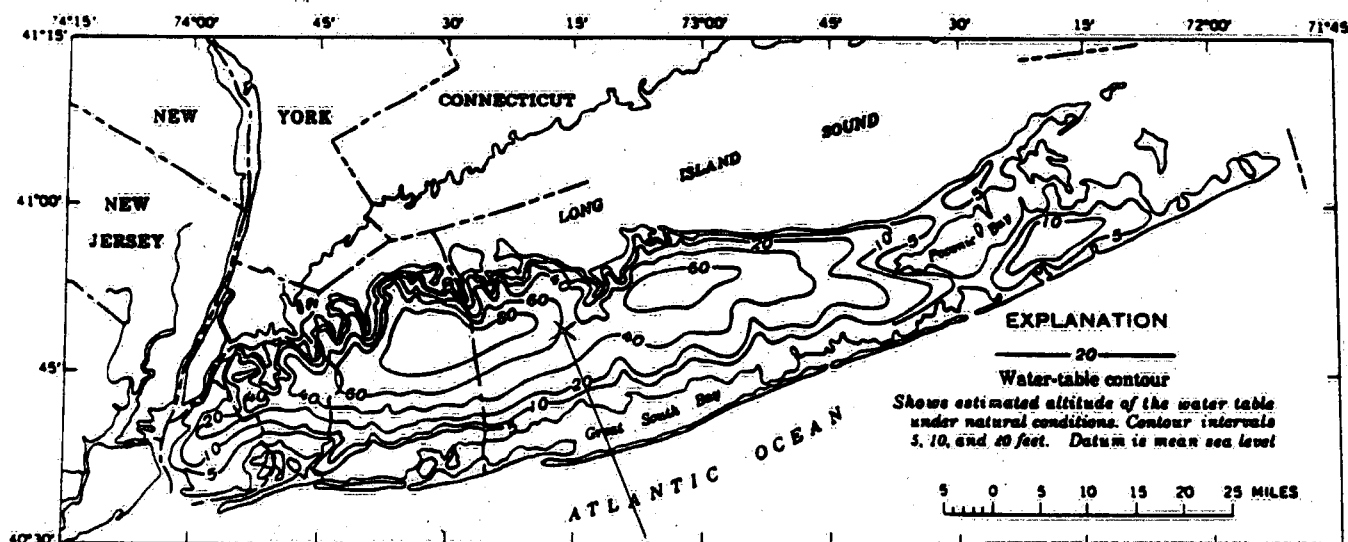


FIGURE 9.—Estimated average position of the water-table under natural conditions.

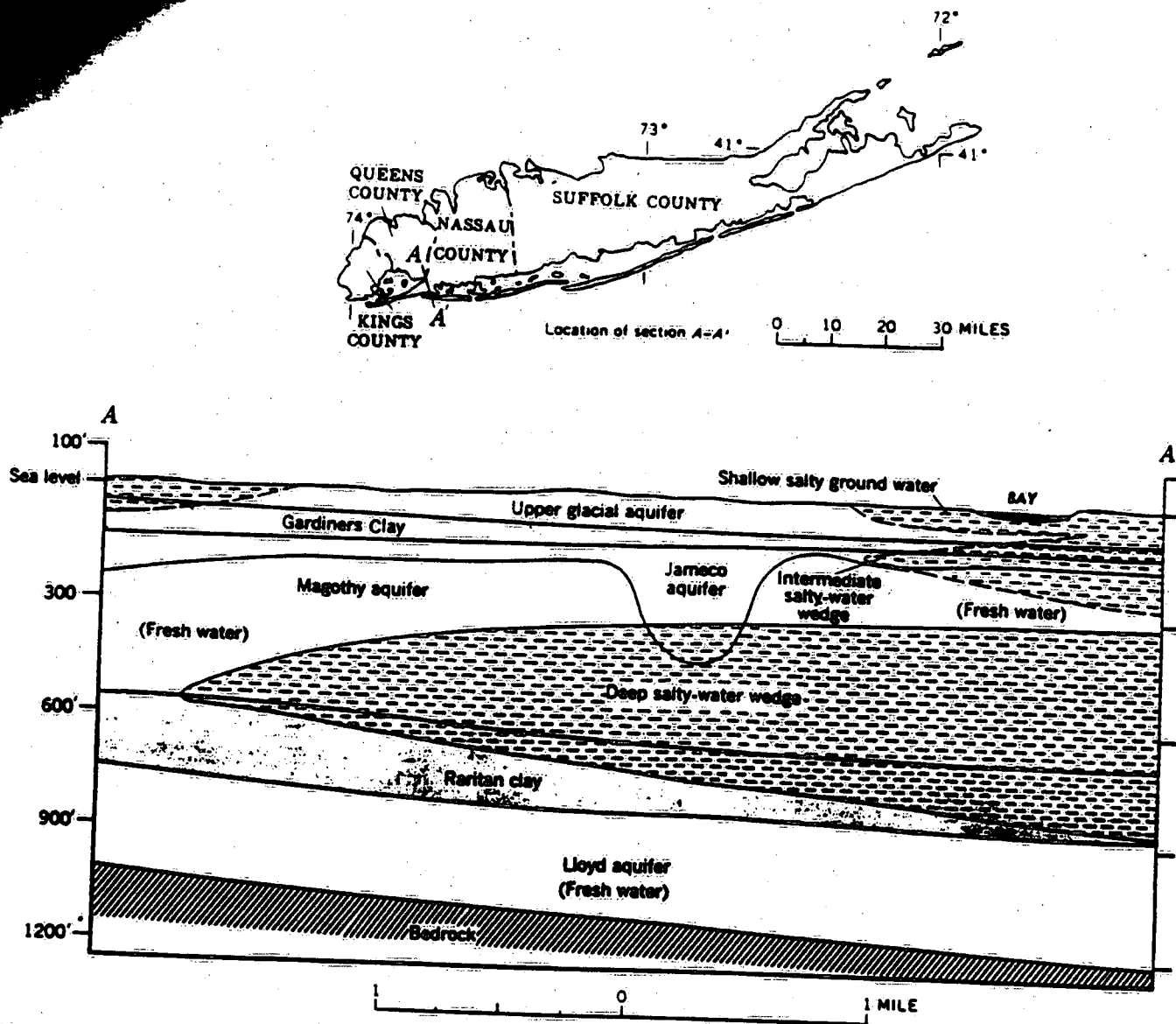


FIGURE 10.—Occurrence of salty ground water in southwestern Nassau County, in 1961. Adapted from Lusczynski and Swarszewski (1968, pl. 3).

The top of the bedrock surface, which outcrops in western Queens County, dips southeast on the average about 65 feet per mile, or slightly less than  $1^\circ$ , to an estimated depth of about 2,000 feet in south-central Suffolk County (fig. 11). The number of control points in the bedrock surface, particularly in Suffolk County, is small; therefore, the surface undoubtedly is more irregular than is indicated in figure 11.

For practical purposes the bedrock surface is the impervious bottom of the ground-water reservoir. Hydraulically, therefore, the top of the bedrock is a stream surface; ground water flows parallel to the bedrock and not across it, and equipotential lines or surfaces intersect the bedrock at right angles.

Generally, the flowing parts of the streams on Long Island are ground-water drains, and the ground water continually discharges into these parts under natural conditions. Therefore, in relation to the ground-water reservoir, the streams are discharging potential boundaries. The potential at a given point on the stream is equal to the altitude of the stream at that point. Thus, the potential along the stream channel varies continuously from the altitude of start of flow of the stream to the altitude of the surrounding bay or ocean.

The approximate location and altitude of the points of start of flow for several streams in June 1967 are shown in figure 3. Because ground-water levels and

# HYDROLOGY AND SOME EFFECTS OF URBANIZATION ON LONG ISLAND, NEW YORK

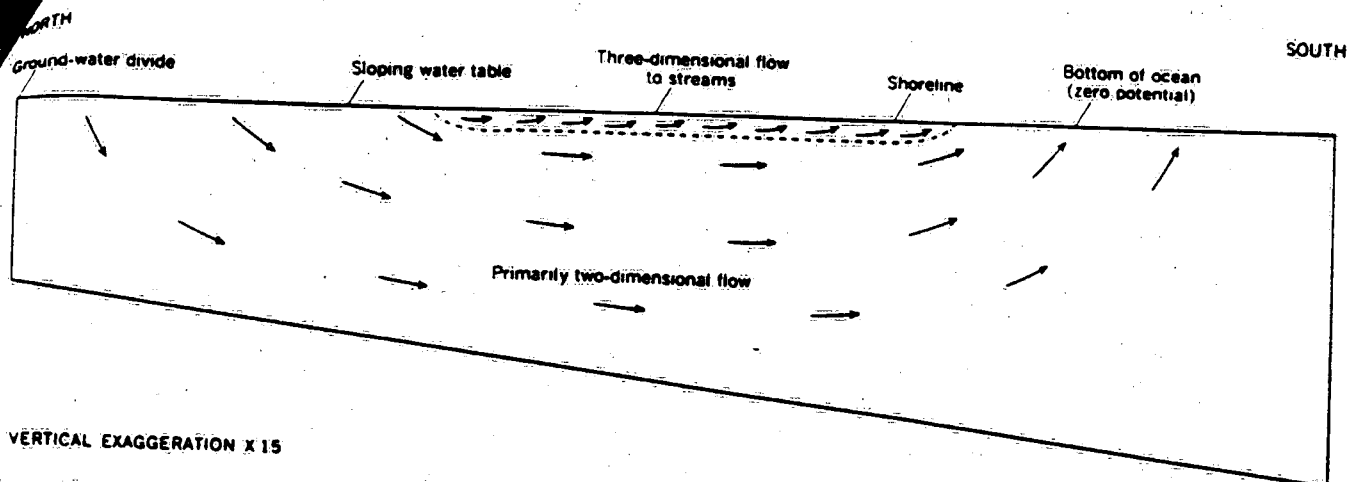


FIGURE 19.—Diagrammatic cross section of the southern half of the ground-water reservoir showing the part of the reservoir with primarily two-dimensional flow and the part of the reservoir with three-dimensional flow to streams.

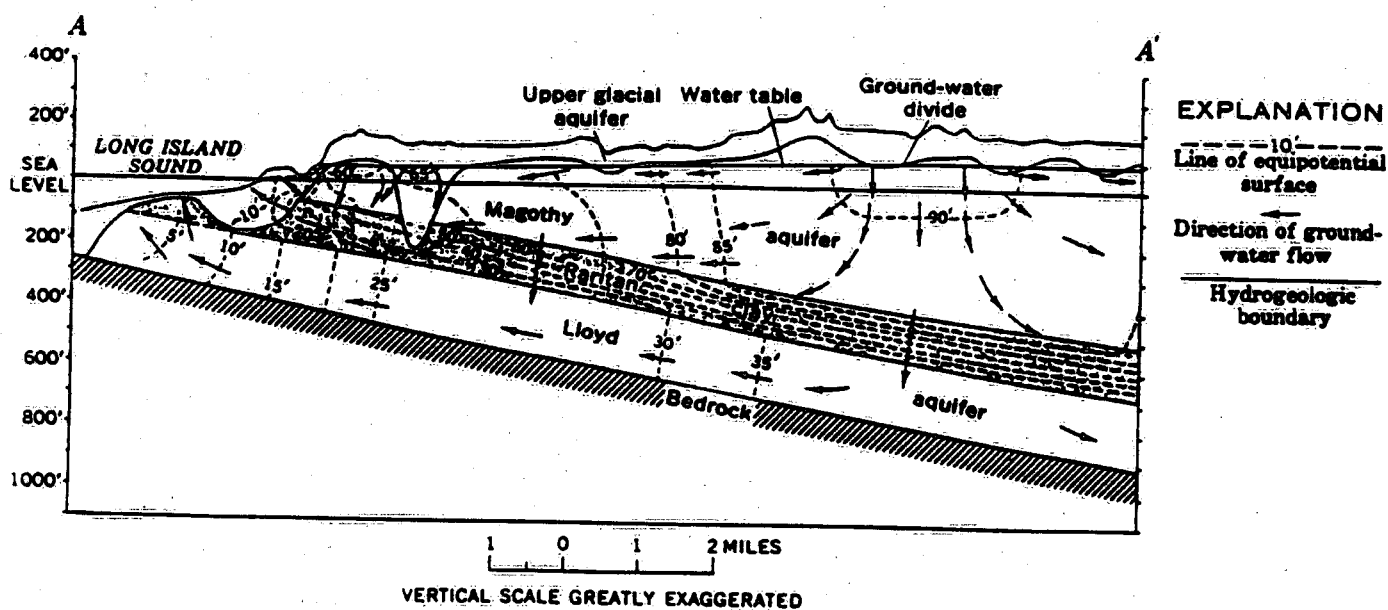
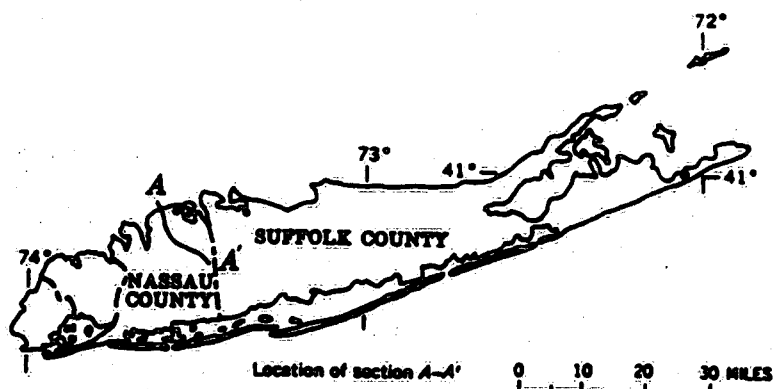


FIGURE 20.—Geohydrologic section of the ground-water reservoir in northeastern Nassau County in March 1961. Adapted from Isbister (1966, fig. 11).

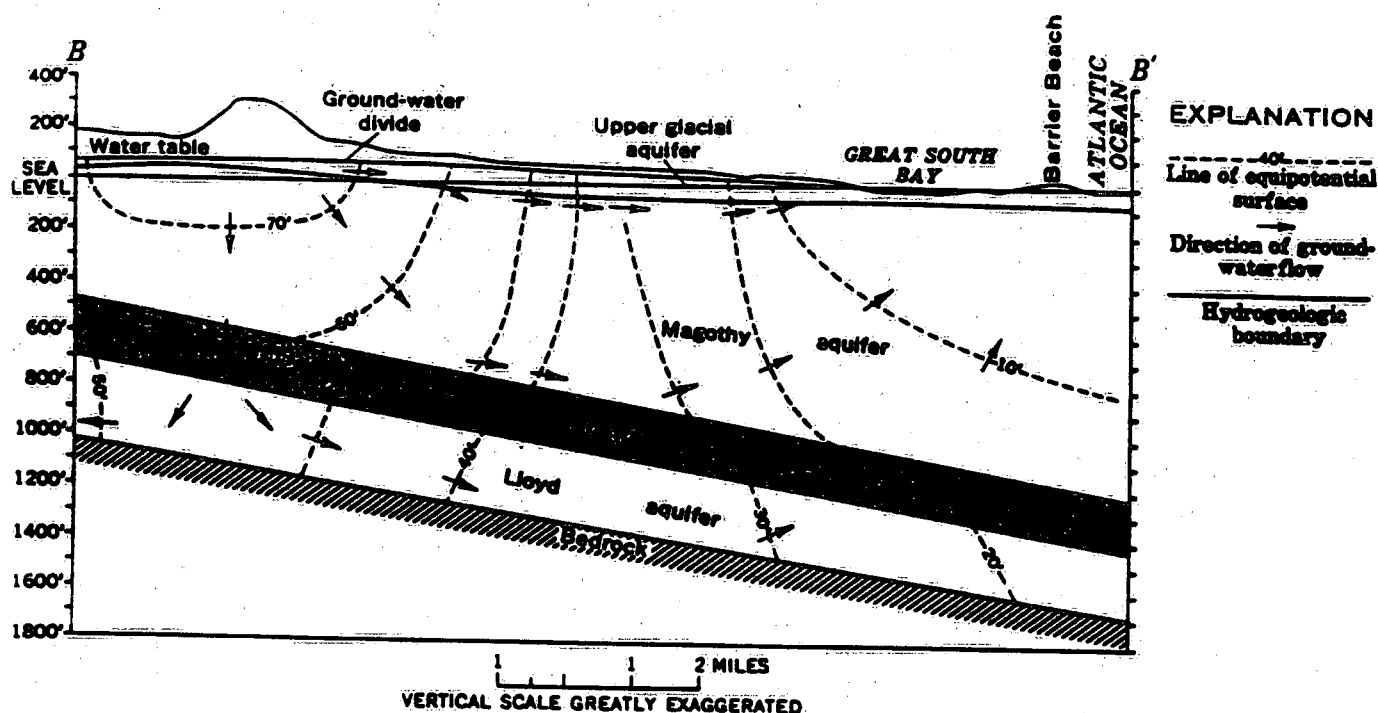
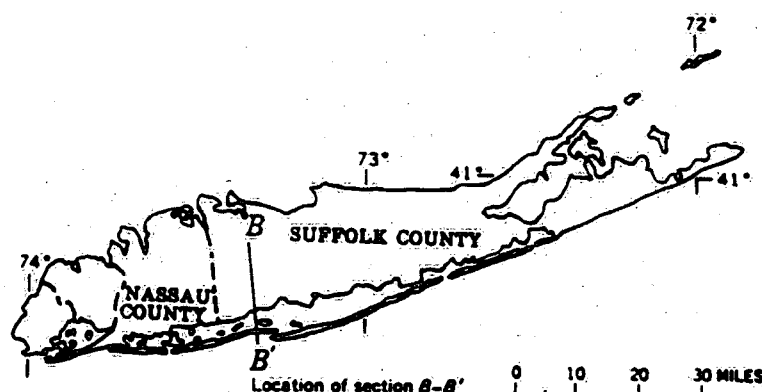


FIGURE 21.—Geohydrologic section of the ground-water reservoir in southwestern Suffolk County in October 1960. Adapted from Pluhowski and Kantrowitz (1964, fig. 13).

bounds the fresh ground-water reservoir of Long Island. The presence of the salty ground water results in several salt-fresh water interfaces at various depths in the Long Island ground-water reservoir. As stated previously, these interfaces are dynamic boundaries that change position in response to changes in head within the ground-water reservoir. The positions of these interfaces are undoubtedly at least partly related to the location of the relatively permeable and impermeable layers in the ground-water reservoir.

#### DISCHARGE FROM THE GROUND-WATER RESERVOIR

The main elements of discharge from the ground-water reservoir are seepage to streams and springs, ground-water evapotranspiration, and sub-surface outflow (fig. 13).

#### STREAMFLOW AND SPRINGFLOW

Those aspects of streamflow that are emphasized in this report are the annual and daily streamflow from the water-budget area, streamflow in the near-

REFERENCE NO. 13

[6560-01]

(FRL 910-3)

# AQUIFERS UNDERLYING NASSAU AND SUFFOLK COUNTIES, NEW YORK

## Determination

Notice is hereby given that pursuant to Section 1424(e) of the Safe Drinking Water Act (42 U.S.C. 300f, 360h-3(e); 88 Stat. 1660 et seq.; Pub. L. 93-523) the Administrator of the Environmental Protection Agency has determined that the aquifer system underlying Nassau and Suffolk Counties, Long Island, New York, is the principal source of drinking water for these counties and that, if the aquifer system were contaminated, it would create a significant hazard to public health.

## BACKGROUND

The Safe Drinking Water Act was enacted on December 16, 1974. Section 1424(e) of the Act states: "If the Administrator determines, on his own initiative or upon petition, that an area has an aquifer which is the sole or principal drinking water source for the area and which, if contaminated, would create a significant hazard to public health, he shall publish notice of that determination in the FEDERAL REGISTER. After the publication of any such notice, no commitment for Federal financial assistance (through a grant, contract, loan guarantee, or otherwise) may be entered into for any project which the Administrator determines may contaminate such

aquifer through a recharge zone so as to create a significant hazard to public health but a commitment for Federal financial assistance may, if authorized under another provision of law, be entered into to plan or design the project to assure that it will not so contaminate the aquifer."

On January 21, 1975, the Environmental Defense Fund petitioned the Administrator to designate the aquifers underlying Nassau and Suffolk Counties, Long Island, New York, as a sole source aquifer under the provisions of the Act. A notice of receipt of this petition, together with a request for comments, was published in the FEDERAL REGISTER, Thursday, June 12, 1975. Written comments were submitted by the Environmental Defense Fund (EDF) on August 7, 1975, supporting their petition. A letter from the Director of the Nassau-Suffolk Regional Planning Board, dated October 1, 1976, requested that designation be delayed until after the completion of the areawide waste management (208) planning process for Long Island.

Because of the limited response to the FEDERAL REGISTER notice, EPA issued a press release and mailed an information sheet to elected officials and environmental groups on Long Island in March 1977. In addition, a presentation was made to the Citizens Advisory Committee (CAC) of the 208 planning agency and to the executive committee of the Long Island Water Conference. In response to these activities EPA received three comments: a letter from EDF questioning why project review would exclude direct Federal projects, a letter from a member of the East Hampton Planning Board expressing support for the designation, and a letter from the CAC requesting that designation be delayed until after the completion and approval of the Long Island 208 plan.

In considering the comments received, we could not agree with the letters requesting further delay since we do not believe that the review process under Section 1424(e) will constrain the options of 208 planning.

On the basis of the information which is available to this Agency, the Administrator has made the following findings, which are the basis for the determination noted above:

(1) The aquifers underlying Nassau and Suffolk Counties are the sole or principal drinking water source for the area. They supply good quality water for about 2.5 million people. Current water supply treatment practice for public supplies is generally limited to disinfection for drinking purposes, with some plants capable of nitrate removal. There are also numerous private sources. There is no alternative source of drinking water supply which could economically replace this aquifer system.



(2) The aquifer system is vulnerable to contamination through its recharge zone. Since contamination of a ground-water aquifer can be difficult or impossible to reverse, contamination of the the aquifer system underlying Nassau and Suffolk Counties, New York, would pose a significant hazard to those people dependent on the aquifer system for drinking purposes.

Among the determinations which the Administrator must make in connection with the designation of an area under Section 1424(e) is that the area's sole or principal source aquifer or aquifers, "if contaminated, would create a significant hazard to public health . . . ." Obviously, threats to the quality of the drinking water supply for such a large population could create a significant hazard to public health. The EPA does not construe this provision to require a determination that projects planned or likely to be constructed will in fact create such a hazard; it is sufficient to demonstrate that approximately 2.5 million people depend on the aquifer system underlying Nassau and Suffolk Counties as their principal source of drinking water, and that the aquifer system is vulnerable to contamination through its recharge zone.

Section 1424(e) of the Act requires that a Federal agency may not commit funds to a project which may contaminate the aquifer system through a recharge zone so as to create a significant hazard to public health. The recharge zone is that area through which water enters into the aquifer system. Because of groundwater movement within these aquifers, the recharge zone is considered to be the entire area of Nassau and Suffolk Counties. However, both horizontal and vertical boundaries of the recharge zone are discussed in the background document under the section entitled "Area of Consideration."

The data upon which these findings are based are available to the public and may be inspected during normal business hours at the office of the Environmental Protection Agency, Region II, 26 Federal Plaza, New York, New York 10007. It includes a support document for designation of the aquifers underlying Nassau and Suffolk Counties, New York, and maps of the area within which projects will be subject to review.

A copy of the above documentation is also available at the U.S. Waterside Mall, Environmental Protection Agency, Public Information and Reference Unit, Room 2922, 401 M Street S.W., Washington, D.C. 20460.

The EPA has issued proposed regulations for the selective review of Federal financially assisted projects which may contaminate the aquifer system underlying Nassau and Suffolk Counties, New York, through the recharge

zone so as to create a significant hazard to public health. These proposed regulations were published in the *Federal Register* issue of September 29, 1977, and public comments were requested. They will be used as interim guidance for project review until their promulgation during 1978.

EPA Region II is working with the Federal agencies which may in the near future fund projects in the area of concern to EPA to develop inter-agency procedures whereby EPA will be notified of proposed commitments for projects which could contaminate the bicounty area's sole source aquifer system. Although the project review process cannot be delegated, the Regional Administrator in Region II will rely to the maximum extent possible upon any existing or future State and local control mechanisms in protecting the ground-water quality of the aquifer system underlying Nassau and Suffolk Counties, New York. Included in the review of any Federal financially assisted project will be coordination with the State and local agencies. Their determinations will be given full consideration and the Federal review process will function so as to complement and support State and local mechanisms.

Dated: June 12, 1978.

DOUGLAS M. COSTLE,  
Administrator.

(PR Doc. 78-17067 Filed 6-20-78; 8:45 am)

REFERENCE NO. 14

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# **Uncontrolled Hazardous Waste Site Ranking System**

## **A Users Manual** (HW-10)

Originally Published in  
the July 16, 1982, *Federal Register*

**United States  
Environmental Protection  
Agency**

**1984**

TABLE 2  
PERMEABILITY OF GEOLOGIC MATERIALS\*

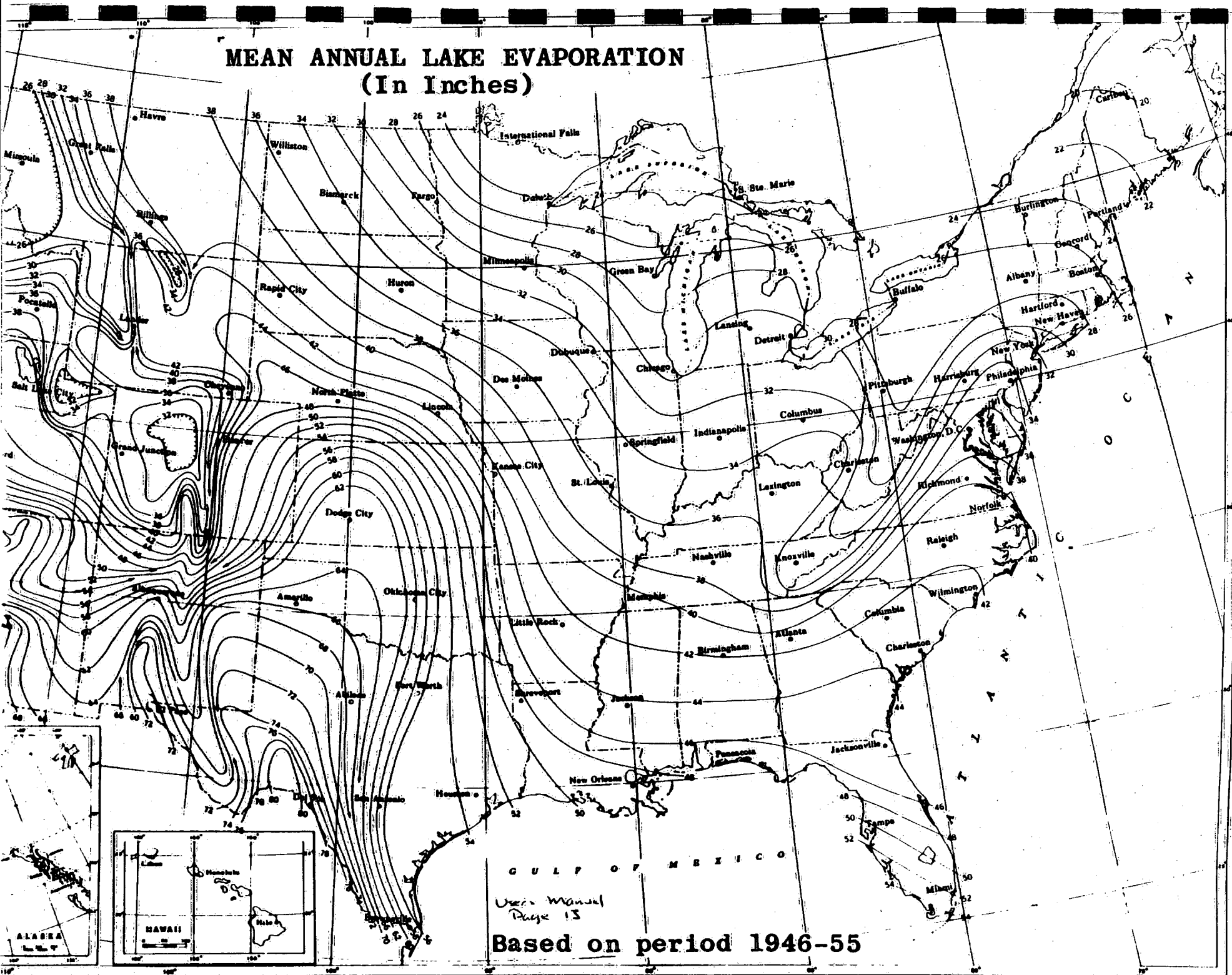
Type of Material	Approximate Range of Hydraulic Conductivity	Assigned Value
Clay, compact till, shale; unfractured metamorphic and igneous rocks	$<10^{-7}$ cm/sec	0
Silt, loess, silty clays, silty loams, clay loams; less permeable limestone, dolomites, and sandstone; moderately permeable till	$10^{-5} - 10^{-7}$ cm/sec	1
Fine sand and silty sand; sandy loams; loamy sands; moderately permeable limestone, dolomites, and sandstone (no karst); moderately fractured igneous and metamorphic rocks, some coarse till	$10^{-3} - 10^{-5}$ cm/sec	2
Gravel, sand; highly fractured igneous and metamorphic rocks; permeable basalt and lavas; karst limestone and dolomite	$>10^{-3}$ cm/sec	3

\*Derived from:

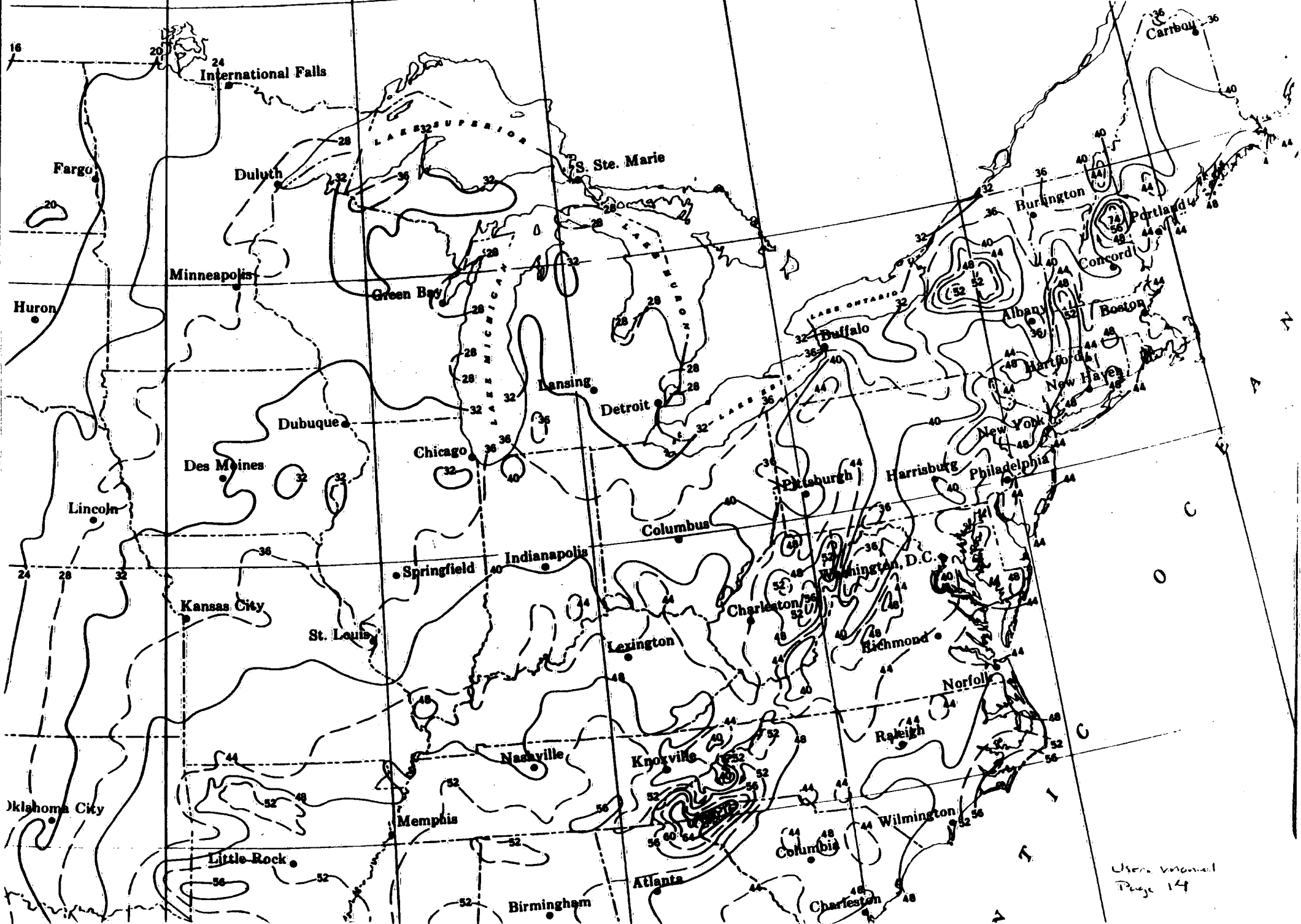
Davis, S. W., Porosity and Permeability of Natural Materials in Flow-Through Porous Media, R.J.M. DeWitt ed., Academic Press, New York, 1969

Freeze, R.A. and J.A. Cherry, Groundwater, Prentice-Hall, Inc., New York, 1979

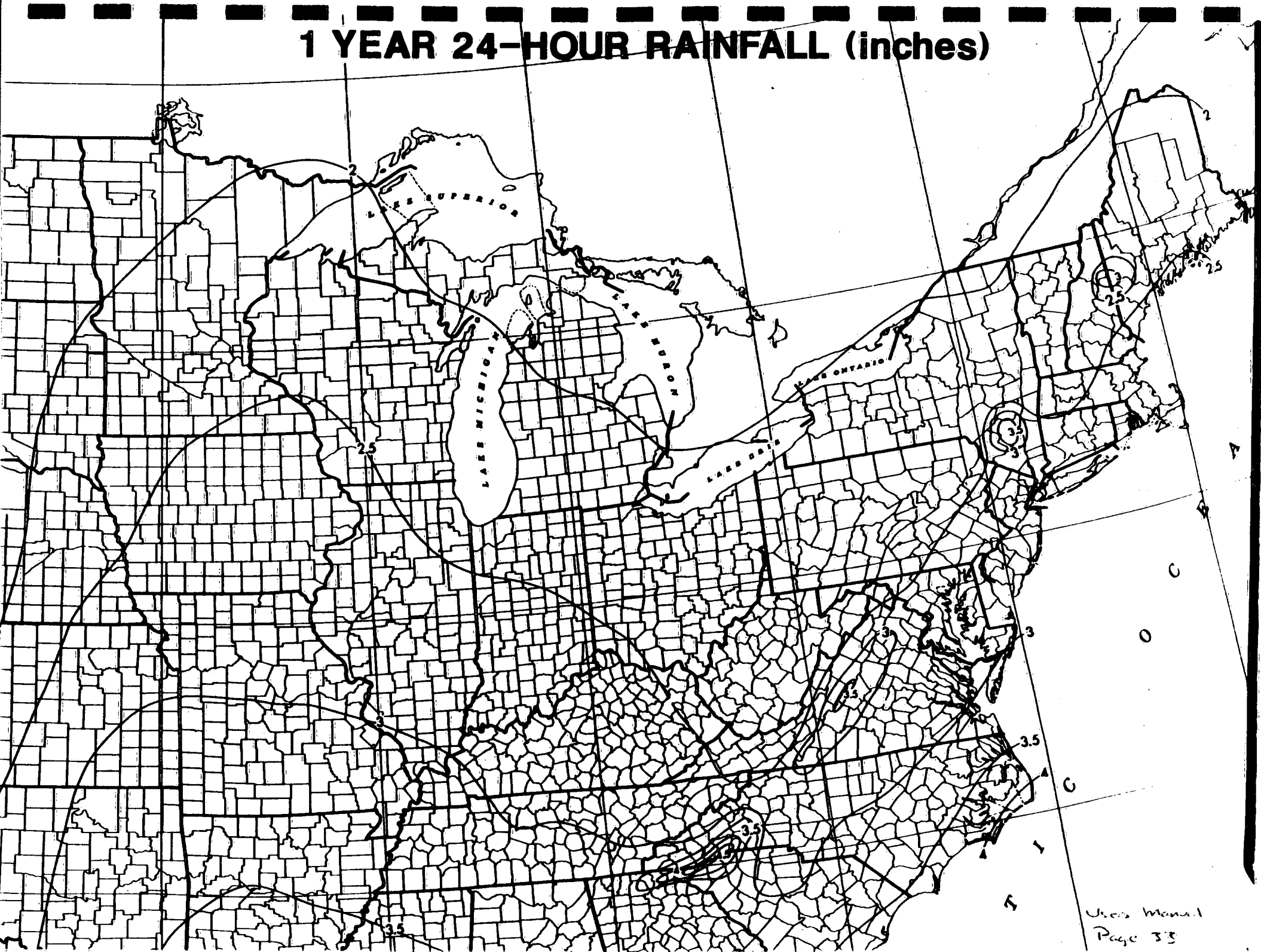
# MEAN ANNUAL LAKE EVAPORATION (In Inches)



# NORMAL ANNUAL TOTAL PRECIPITATION (Inches)



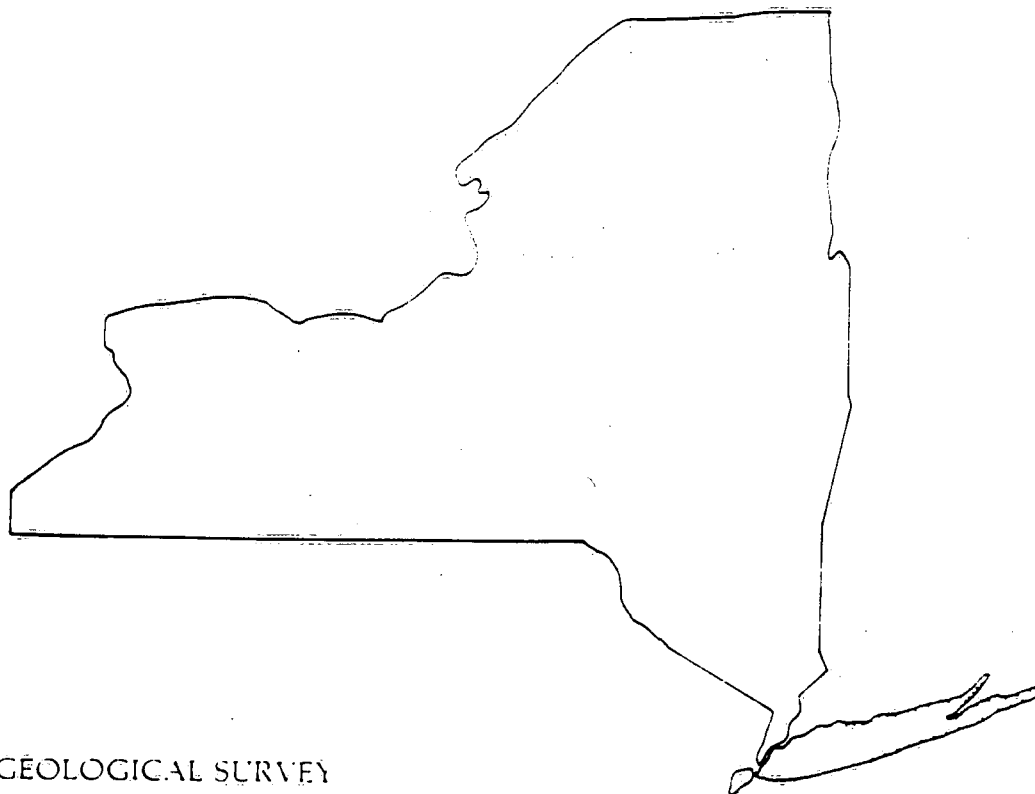
# 1 YEAR 24-HOUR RAINFALL (inches)



REFERENCE NO. 15



Hydrogeologic Data from Selected Wells  
and Test Holes in Suffolk County,  
Long Island, New York, 1972-80



U.S. GEOLOGICAL SURVEY  
Open-File Report 81-500

Prepared in cooperation with  
SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES  
SUFFOLK COUNTY WATER AUTHORITY



# HYDROGEOLOGIC DATA FROM WELLS AND TEST HOLES IN SUFFOLK COUNTY, LONG ISLAND, NEW YORK, 1972-80

By

Richard K. Krulik

## ABSTRACT

*The population of Suffolk County, New York, an area of 922 square miles, has increased rapidly, from less than 200,000 in 1940 to about 1.3 million in 1978. Ground-water pumpage has increased from an average of 42 million gallons per day in 1950 to about 257 million gallons per day in 1978. To help supply the hydrologic information needed to anticipate and prevent shortages, this report presents hydrogeologic and well-completion data on over 700 wells and test holes.*

## INTRODUCTION

Suffolk County, in eastern Long Island, N.Y., is about 90 miles long and has a maximum width of about 20 miles (fig. 1). Land area of the county is about 922 square miles and constitutes approximately two-thirds of Long Island's 1,411 square-mile area. The population of Suffolk County has increased sharply from less than 200,000 in 1940 to about 1.3 million in 1978 (Long Island Lighting Company, Population Survey, January 1978). The growth has occurred mostly in the western part of the county; the eastern part has remained mainly rural.

The freshwater supply for the county is obtained solely from the underlying ground-water reservoir. Ground-water pumpage increased from an average of 42 Mgal/d in 1950 to about 257 Mgal/d in 1978 (R. J. O'Reilly, New York State Department of Environmental Conservation, oral commun., March 1980). The major hydrogeologic units in the ground-water reservoir are summarized in table 1; the vertical relationship of these units is depicted in a generalized section in figure 2.

The recent population growth in Suffolk County has given rise to a need for increased ground-water development. To help supply the hydrologic information needed to anticipate and prevent shortages, the U.S. Geological Survey is participating in a cooperative program of water-resources studies with the Suffolk County Water Authority and the Suffolk County Department of Health Services. Several reports have been published as a result of the cooperative program; among them are Jensen and Soren, 1971; Soren, 1971; and Jensen and Soren 1974.

Table 2 presents hydrogeologic units and well-completion data on 700 wells and test holes in Suffolk County; these include most of the pertinent wells and test holes drilled in Suffolk County since 1972 and a few older wells of importance that were not mentioned previously. Locations of wells and test holes are shown on plate 1.

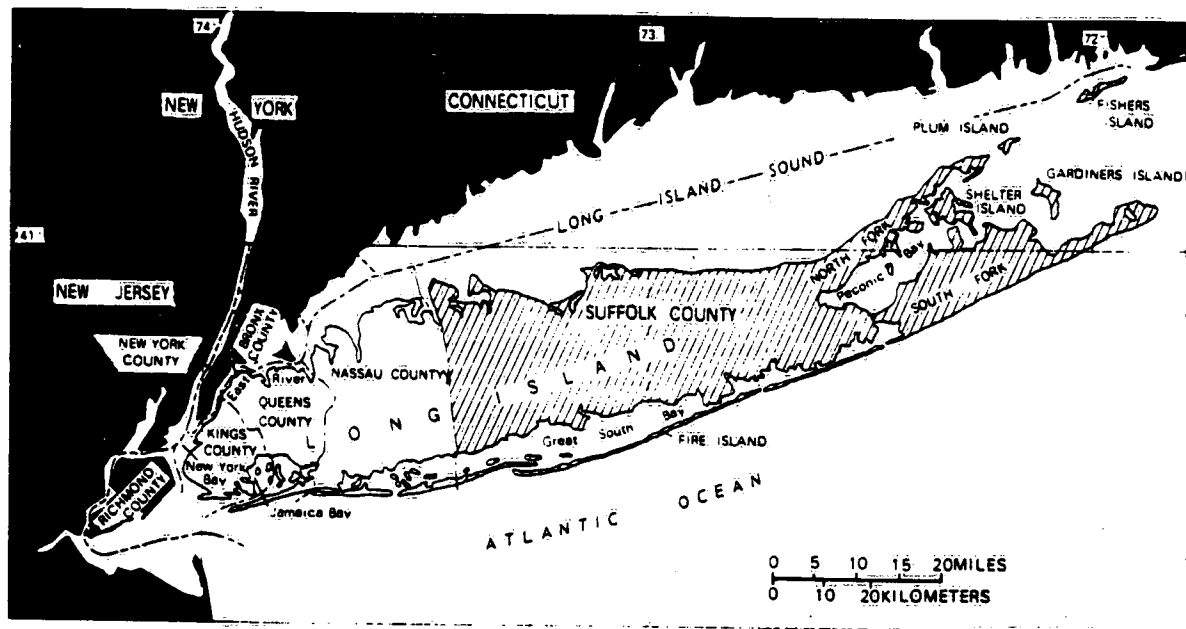


Figure 1.--Map of Long Island showing location of Suffolk County.  
(Modified from Jensen and Soren, 1971, p. 3.)

### Acknowledgments

The author extends thanks to the Suffolk County Water Authority, the Suffolk County Department of Health Services, and the New York State Department of Environmental Conservation, particularly to R. J. O'Reilly, engineering technician, whose cooperation in providing well-completion data was essential for preparation of the report.

The author also thanks the well-drilling companies for providing well information, drill cuttings, and split-spoon core samples used in determining geologic correlations. These companies include Delta Well Company, Inc., Central Islip, N.Y.; East Coast Well Drilling and Supply Company, Inc., Riverhead, N.Y.; Lauman Company, Inc., Farmingdale, N.Y.; Strata Well Corporation, Islip, N.Y.; and Howard McMahon, Inc., Amagansett, N.Y.

## GEOHYDROLOGY

Geology and hydrology of Long Island are summarized in numerous reports, notably Veatch and others (1906), Fuller (1914), Suter and others, (1949), Cohen and others (1968), and Jensen and Soren (1974).

The ground-water reservoir on Long Island lies within a thick sequence of unconsolidated deposits underlain by Precambrian (?) basement complex (fig. 2). The unconsolidated materials consist of a southward-dipping wedge of Cretaceous deposits overlain by a relatively thick layer of glacial outwash and morainal deposits of Pleistocene age. Characteristics of the geologic and hydrogeologic units are summarized in table 1.

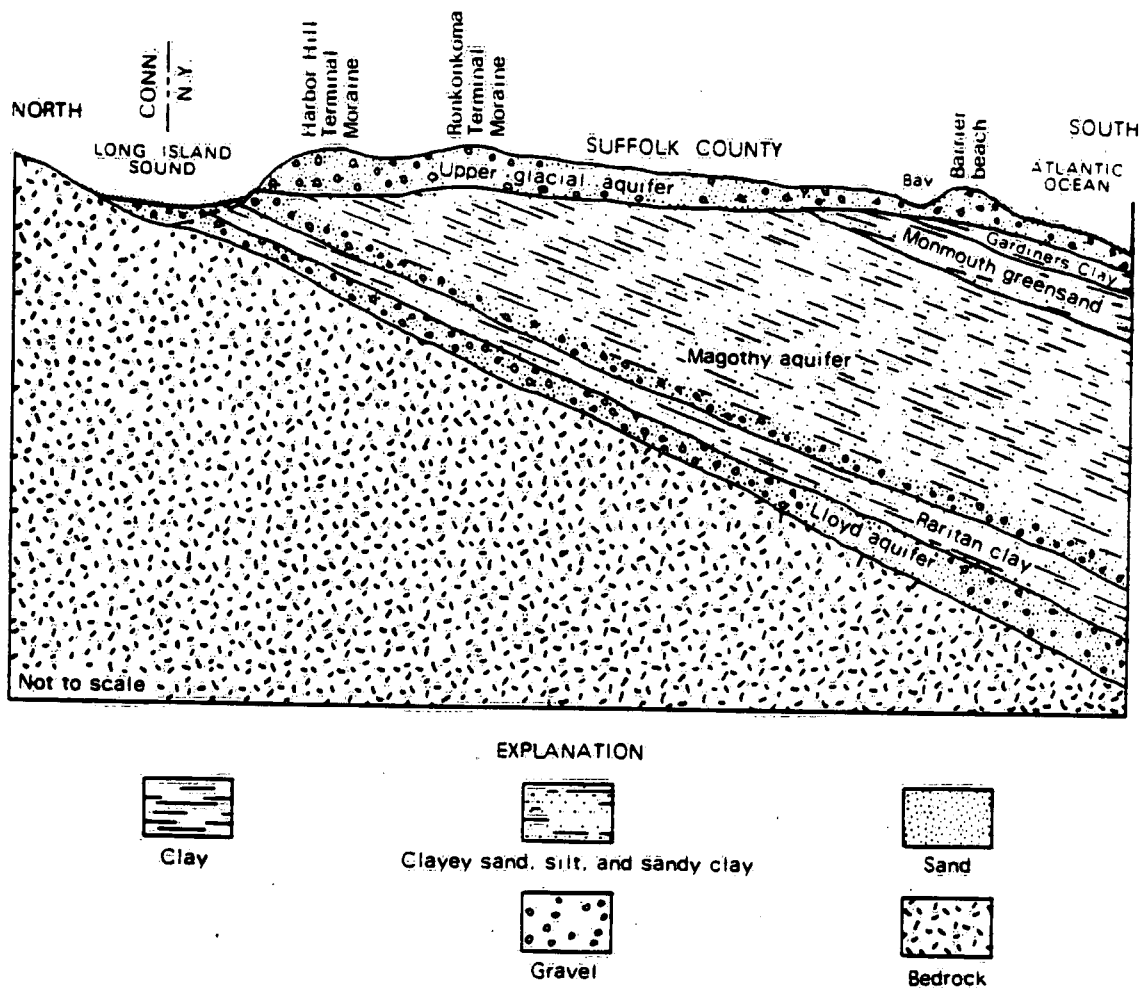


Figure 2.--Generalized section showing major hydrogeologic units in Suffolk County. (From Cohen and others, 1968.)

Table 1.--Major hydrogeologic units in Suffolk County, N.Y.

Hydrogeologic unit <sup>1/</sup>	Geologic name	Approximate thickness (feet)	Description and water-bearing character
Upper glacial aquifer	Holocene and upper Pleistocene deposits, and Mannetto Gravel	0 - 750	Mainly brown and gray sand and gravel of moderate to high hydraulic conductivity; also includes deposits of clayey glacial till and lacustrine clay of low hydraulic conductivity. A major aquifer.
Gardiners Clay	Gardiners Clay	0 - 75	Green and gray clay, silt, clayey and silty sand, and some interbedded clayey and silty gravel; of low hydraulic conductivity. Unit tends to confine water in underlying aquifer.
Monmouth greensand	Monmouth Group, undifferentiated	0 - 200	Interbedded marine deposits of dark-gray, olive-green, dark-greenish-gray, and greenish-black glauconitic and lignitic clay, silt, and clayey and silty sand. Unit has low hydraulic conductivity and tends to confine water in underlying aquifer.
Magothy aquifer	Matawan Group and Magothy Formation, undifferentiated	0 - 1,100	Gray and white fine to coarse sand of moderate hydraulic conductivity. Generally contains sand and gravel beds of low to high hydraulic conductivity in basal 100 to 200 feet. Contains much interstitial clay and silt, and beds and lenses of clay, of low hydraulic conductivity. A major aquifer.
Raritan Clay	Unnamed clay member of the Raritan Formation	0 - 200	Gray, black, and multicolored clay and some silt and fine sand. Unit has low hydraulic conductivity and tends to confine water in underlying aquifer.
Lloyd aquifer	Lloyd Sand Member of the Raritan Formation	0 - 500	White and gray fine-to-coarse sand and gravel of moderate hydraulic conductivity and some clayey beds of low hydraulic conductivity. Not highly developed as an aquifer.
Bedrock	Undifferentiated crystalline rocks	Not Known	Mainly metamorphic rocks of low hydraulic conductivity; surface generally weathered; considered to be the bottom of the ground-water reservoir. Not a source of water in Suffolk County.

<sup>1/</sup> Adapted largely from Cohen and others (1968, p. 18).

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Table 2. Hydrogeologic units and well completion data from selected wells and test holes in Suffolk County, New York.

## EXPLANATION OF COLUMNAR DATA AND ABBREVIATIONS

### Well Number

Well numbers are assigned by the New York State Department of Environmental Conservation. A prefix letter S, which designates Suffolk County, is omitted from the well number; thus, the official number of well 40161, for example, is S 40161. Wells are listed in numerical order.

### Location of Well

Locations of wells are given by map coordinates, based on latitude and longitude, as shown on plate 1. Map coordinates are based on a latitude and longitude grid system established for Long Island (Veatch and others, 1906; Jensen and Soren, 1971). In this system, 5-minute intervals of latitude are lettered consecutively from south to north, and 5-minute intervals of longitude are numbered consecutively from west to east. The grid coordinates for Suffolk County are shown along the margins of plate 1. Thus, a well whose map coordinates are D15 is in the grid square bounded by lat 40°45' and 40°50'N and long 72°55' and 72°50'W.

Wells are also numbered according to the national well-numbering system of the U.S. Geological Survey. This system locates wells to the nearest second of latitude and longitude and gives a sequence number to the well to denote the chronological order in which wells within a 1-second quadrangle were recorded. For example, in well number 404707N0731905.01 (S 18075), the first six numbers indicate latitude 40°47'07" North; the remaining numbers before the period indicate longitude 073°19'05". The 01 after the period is the sequence number. Thus this well was the first one recorded in the 1-second quadrangle defined by the latitude and the longitude.

### Well depth

The figures give well depth or total depth of the drilled test hole, in feet below land surface.

### Hydrogeologic Unit Penetrated and Elevation of Unit Surface

Elevations of the tops of the hydrogeologic units penetrated by wells are given in feet above or below National Geodetic Vertical Datum of 1929. A minus (-) sign preceding the elevation figure indicates that the elevation is below National Geodetic Vertical Datum of 1929. The number in the "upper glacial aquifer" column is the elevation of the land surface at the well site. Absence of an elevation figure indicates that the test hole did not penetrate the unit.

Table 2.--Explanation (continued)

Year Completed

Year completed refers to the year in which the well was reported to have been completed or accepted by the original well owner. It may not always be the year in which the well was actually drilled.

Elevation of Land-Surface Datum (LSD)  
(feet above National Geodetic Vertical Datum of 1929)

The elevation of land surface at the well was estimated from U.S. Geological Survey 7-1/2-minute quadrangle topographic maps.

Use of Water

The following abbreviations indicate the primary purpose in 1977 for which the water from the well was reported to be used.

ARCD	air conditioning	IND	industrial
COM	commercial	IRR	irrigation
DOM	domestic	OTHR	other
FRPT	fire protection	P.S.	public supply
INST	institutional		

Use of Well

The following abbreviations indicate the principal use of the well or the purpose for which the well or hole was drilled.

DEST	well destroyed	TEST	test hole
OBS	observation well	UNSD	well unused
RECH	recharge water	WTDR	withdrawal of water

Screen Setting and Total Screen Length

The elevations of the top and bottom of the screened interval are given in feet above or below (-) National Geodetic Vertical Datum of 1929. The total length of screen or perforated pipe in that interval is given in feet. In some wells, screen was set at two or more intervals; in such cases the difference between the elevations of the two screen settings is different from the total screen length.

Diameter of Well

The diameter of the well is the inside diameter of the smallest casing at land surface, in inches.



Table 2.--Explanation (continued)

Water Level (feet below land-surface datum)

The water level given is the reported original static water level, in feet above or below land surface, when the well was completed.

Date of Measurement

The date of water-level measurement is given by month (M), day (D), and year (Y).

Lift Type

The following abbreviations indicate the type of pump or other conveyance known or assumed to have been used in 1977 to bring water to the surface.

CENT	centrifugal	TURB	turbine
JET	jet	NONE	no pump in well
SUBM	submersible	OTHR	some other type of lift

Aquifer Developed

The following abbreviations indicate the hydrogeologic unit that yields water to the well. Where two or more units yield water to the well, the probable principal unit is given.

UPGLAC	Upper glacial aquifer
GARD	Gardiners Clay
MONMOUTH	Monmouth greensand
MAGOTHY	Magothy aquifer
RARITAN	Raritan clay
LLOYD	Lloyd aquifer

Table 2.--Explanation (continued)

Specific Capacity

The value in this column is the number of gallons per minute pumped from the well per foot of drawdown in the well, as reported by drillers.

Abbreviations

COORD	coordinates
D	day
DIAM	diameter
FT	feet
GPM/FT	gallons per minute pumped per foot of drawdown in the well
IN	inches
LSD	land surface datum
M	month
MEAS	measurement
NGVD	National Geodetic Vertical Datum of 1929.
Y	year

Table 1.--Hydrologic units and well-completion data

HYDROLOGIC UNIT PENETRATED AND ELEVATION OF UNIT SURFACE, IN FEET ABOVE OR BELOW NATIONAL GEODETIC VERTICAL DATUM OF 1929													
Location of well			Well depth (ft)	Upper glacial aquifer	Cardiners Clay	Monmouth greensand	Magothy aquifer	Raritan clay	Lloyd aquifer	Bedrock			
Well number	Map coord	Latitude and Longitude											
53326	G20	410229 0722957.01	92	60									
53327	G20	410022 0722936.01	44	24									
53328	G21	410234 0722436.01	41	20									
53329	G20	410140 0722816.01	71	30									
53330	H21	410706 0722032.01	52	15									
53331	H21	410753 0722055.01	70	47									
53332	F19	405843 0723243.01	45	25									
53333	F19	405924 0723423.01	74	51									
53334	F19	405959 0723039.01	53	32									
53335	G20	410304 0722627.01	37	16									
53336	G19	410017 0723155.01	42	18									
53337	H22	410906 0721713.01	52	20									
53338	G20	410412 0722613.01	65	39									
53339	G20	404722 0730305.01	798	50	-122		-140						
53360	E10	405032 0731628.02	703	141			-88						
53361	E10	405133 0731559.01	521	148			-75						
53497	D12	404950 0730850.01	173	90									
53498	D12	404950 0730850.02	721	90			-180						
53522	E17	405230 0724300.01	137	167	-69		-81						
53593	E18	405124 0723536.03	161	47									
53747	E10	405140 0731910.01	453	171			-117						
53851	E17	405230 0724300.02	291	167	-69		-81						
54099	E13	405029 0730321.01	703	170			-90						
54155	C10	404326 0731735.01	721	38			-97						
54162	E10	405359 0731828.01	543	151									
54305	D12	404805 0730515.02	313	100	-78		-96						
54308	D11	404759 0731225.01	797	109			-106						
54377	B12	403936 0730525.01	630	5			-329						
54473	E13	405030 0730321.03	312	170	-69		-130						
54478	F18	405906 0723528.01	125	65			-481						
54479	F18	405857 0723538.01	467	65			-481						
54568	C 8	404210 0732502.02	423	45	-38		-53						
54731	B10	403822 0731550.01	750	8			-117						
54957	D11	404618 0731233.01	378	50			-74						
55028	E25	405332 0722420.01	161	50			-158						
55076	F18	405856 0723540.01	343	68									
55094	E 9	405122 0732327.01	180	185									
55733	C10	404326 0731741.01	233	38			-97						
56133	E10	405434 0731942.02	333	70									
56423	C10	404418 0731718.01	800	50	-50		-75						
56508	D13	404342 0730133.01	709	6	-116	-135	-184						
56674	D13	404950 0730015.01	179	107	-71								
56980	F18	405935 0723548.01	1104	35			-285	-715	-875	-1015			
57008	D10	404658 0731642.01	635	111			-160						
57354	E 8	405126 0732737.01	257	50									
57357	G26	410249 0715545.01	93	32									
57666	D 9	404604 0732438.01	270	105	-110								
57723	C13	404322 0730450.01	807	38			-152						
57748	F 8	405520 0732939.01	418	82									
57979	F12	405614 0730515.01	582	100			-282	-300					
57980	F13	405510 0730452.01	703	187			-55						
58708	D10	404936 0731525.01	423	132			-98	-573					
58755	E13	405052 0730205.01	252	240			-16						
58761	E13	405342 0730307.01	723	130									
58921	G25	410040 0720025.01	75	48			-165						

nearest well.

from selected wells and test holes in Suffolk County, New York.

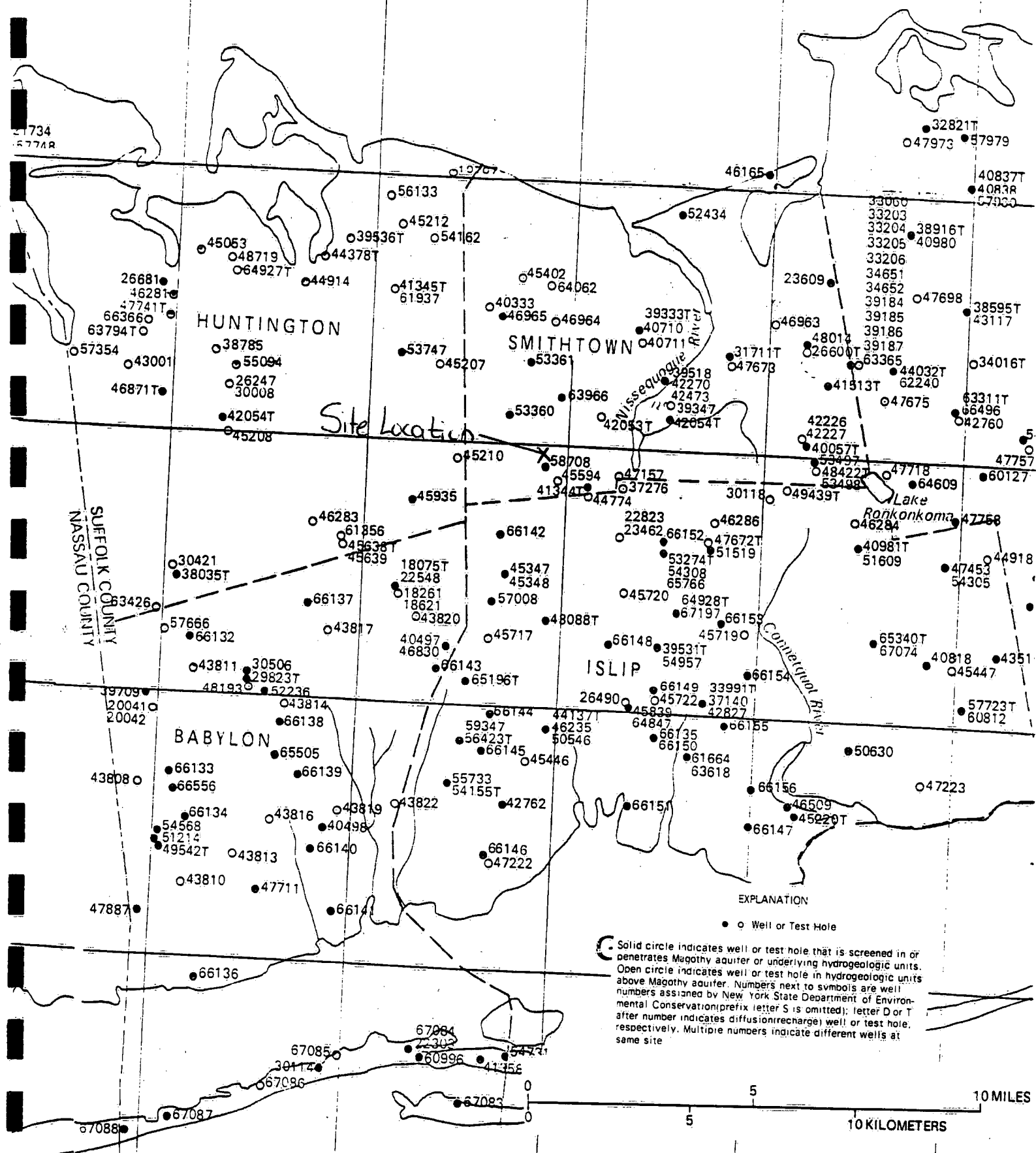
WELL-COMPLETION DATA

Well Number	Year Completed	Elevation of LSD (ft above or below NGVD)	Use of Water	Use of Well	Screen Setting (ft above or below NGVD)	Total Screen Length (ft)	Diam of Well (in)	Water Level (ft below LSD)	Date of Meas. (M-D-Y)	Lift Type	Aquifer Developed	Specific Capacity (GPM/ft)
53326	1974	60	UNSD	OBS	- 19 TO - 29	10	4				UPGLAC	
53327	1974	24	UNSD	OBS	- 8 TO - 18	10	4				UPGLAC	
53328	1974	20	UNSD	OBS	- 9 TO - 19	10	4				UPGLAC	
53329	1975	30	UNSD	OBS	- 26 TO - 41	15	8				UPGLAC	
53330	1975	15	UNSD	OBS	- 17 TO - 37	20	4				UPGLAC	
53331	1974	47	UNSD	OBS	- 11 TO - 21	10	4				UPGLAC	
53332	1974	25	UNSD	OBS	- 8 TO - 18	10	4				UPGLAC	
53333	1974	51	UNSD	OBS	- 11 TO - 21	10	4				UPGLAC	
53334	1974	32	UNSD	OBS	- 9 TO - 19	10	4				UPGLAC	
53335	1974	16	UNSD	OBS	- 9 TO - 19	10	4				UPGLAC	
53336	1974	18	UNSD	OBS	- 12 TO - 22	10	4				UPGLAC	
53337	1975	20	UNSD	OBS	- 12 TO - 32	20	4				UPGLAC	
53338	1974	39	UNSD	OBS	- 14 TO - 24	10	4				UPGLAC	
53339	1974	50	UNSD	TEST							MAGOTHY	
53360	1975	141	P.S.	WTDR	-407 TO -526	119	20	80	02-27-75	TURB	MAGOTHY	76
53361	1975	148	P.S.	WTDR	-289 TO -369	80	20	111	05-15-75	TURB	MAGOTHY	61
53497	1975	90	P.S.	WTDR	- 25 TO - 80	55	42				UPGLAC	
53498	1975	90	P.S.	WTDR	-575 TO -628	55	42				UPGLAC	
53522	1976	167	P.S.	WTDR							MAGOTHY	
53593	1974	47	P.S.	WTDR	- 71 TO -111	40	20	38	12-17-74	TURB	UPGLAC	
53747	1975	171	P.S.	WTDR	-199 TO -277	78	20	111	10-03-75	TURB	MAGOTHY	51
53851	1975	167	P.S.	WTDR							MAGOTHY	
54099	1975	170	UNSD	TEST				114	02-27-75		MAGOTHY	
54155	1975	38	UNSD	TEST							MAGOTHY	
54162	1975	151	P.S.	WTDR	-304 TO -374	70	20	130	03-18-75		UPGLAC	82
54305	1975	100	P.S.	WTDR	-149 TO -210	61	20	55	06-02-75		MAGOTHY	26
54308	1975	109	P.S.	WTDR	-613 TO -683	70	20	72	05-06-75	TURB	MAGOTHY	50
54377	1975	5	P.S.	WTDR	-575 TO -625	50	12	10	04-03-75	TURB	MAGOTHY	20
54475	1975	170	P.S.	WTDR	- 78 TO -139	61	20	115	07-16-75	TURB	MAGOTHY	44
54478	1975	65	UNSD	TEST	- 29 TO - 60	31	12	56	03-31-75		MAGOTHY	66
54479	1975	65	UNSD	OBS	-392 TO -402	10	6				MAGOTHY	
54568	1975	45	P.S.	WTDR	-293 TO -376	83	20	23	05-12-75	TURB	MAGOTHY	41
54731	1975	8	P.S.	WTDR	-691 TO -742	51	14	4	07-21-75		MAGOTHY	21
54957	1976	50	P.S.	WTDR	-268 TO -323	55	20	19			MAGOTHY	10
55028	1975	50	P.S.	WTDR	- 75 TO -110	35	10	43	08-01-75		UPGLAC	175
55076	1975	68	UNSD	UNSD							UPGLAC	
55094	1975	185	UNSD	UNSD							UPGLAC	
55733	1975	38	P.S.	WTDR	-142 TO -192	50	20	14	09-25-75	TURB	MAGOTHY	56
56133	1976	70	UNSD	TEST	-157 TO -261	104	20	23	05-12-76		UPGLAC	108
56423	1975	50	UNSD	TEST		0		21			MAGOTHY	13
56508	1976	6	UNSD	TEST		0					MAGOTHY	
56674	1975	107	P.S.	WTDR	- 15 TO - 65	50	20	56	12-26-75		UPGLAC	88
56980	1976	35	UNSD	TEST							LLOYD	
57008	1976	111	P.S.	WTDR	-418 TO -521	103	20	62	02-23-76	TURB	MAGOTHY	50
57354	1976	50	P.S.	WTDR	-163 TO -204	41	12	19	04-29-76	TURB	UPGLAC	48
57357	1976	32	UNSD	UNSD	- 26 TO - 57	31	10	29	03-18-76		UPGLAC	152
57666	1976	105	ARCD	WTDR	-135 TO -165	30	8	43	08-10-76	TURB	UPGLAC	13
57723	1976	38	UNSD	TEST			16				MAGOTHY	
57748	1977	82	DOM	WTDR	-331 TO -336	5	4	78	05-15-76	SUBM	LLOYD	2
57979	1976	100	P.S.	WTDR	-389 TO -479	90	20	59	03-26-76	TURB	MAGOTHY	56
57980	1977	187	P.S.	WTDR	-443 TO -513	70	20	144	01-03-77	TURB	MAGOTHY	24
58708	1976	132	P.S.	WTDR	-197 TO -257	60	20	81	09-28-76	TURB	MAGOTHY	50
58755	1976	240	DOM	WTDR	- 6 TO - 12	6	4				UPGLAC	
58761	1977	130	UNSD	UNSD	-522 TO -593	71	20	82	02-15-77		MAGOTHY	22
58921	1976	48	UNSD	OBS	- 19 TO - 24	5	4				UPGLAC	

earliest well



# LOCATION OF SELECTED WELLS AND TEST HOLES IN SUFFOLK COUNTY, NEW YORK

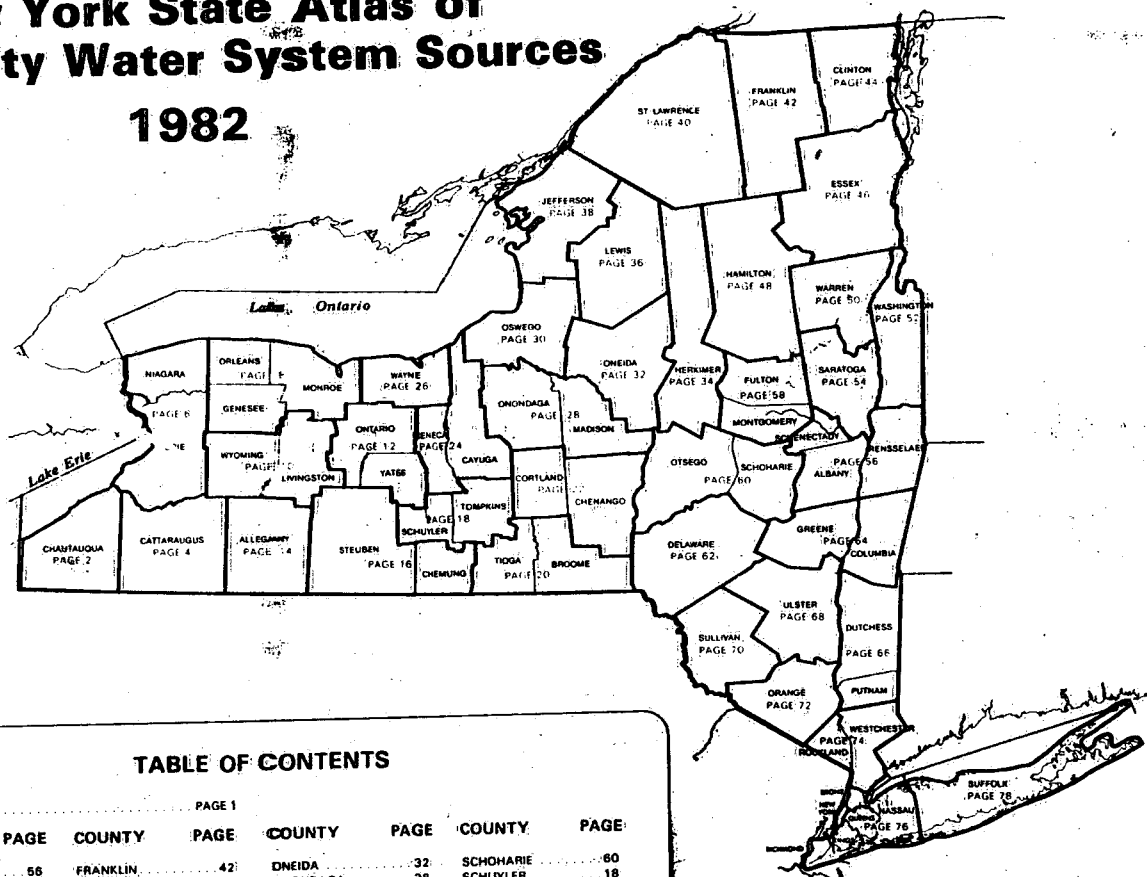


REFERENCE NO. 16

# New York State Atlas of Community Water System Sources

1982

NEW YORK STATE  
DEPARTMENT OF HEALTH



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## LEGEND

### BOUNDARIES AND PLACES

International  
State  
County  
Town  
Indian Reservation  
City  
Unincorporated Place  
Built-up Area (Over 25,000 population including any contiguous city or village)

### CLASSIFICATION OF POPULATED PLACES

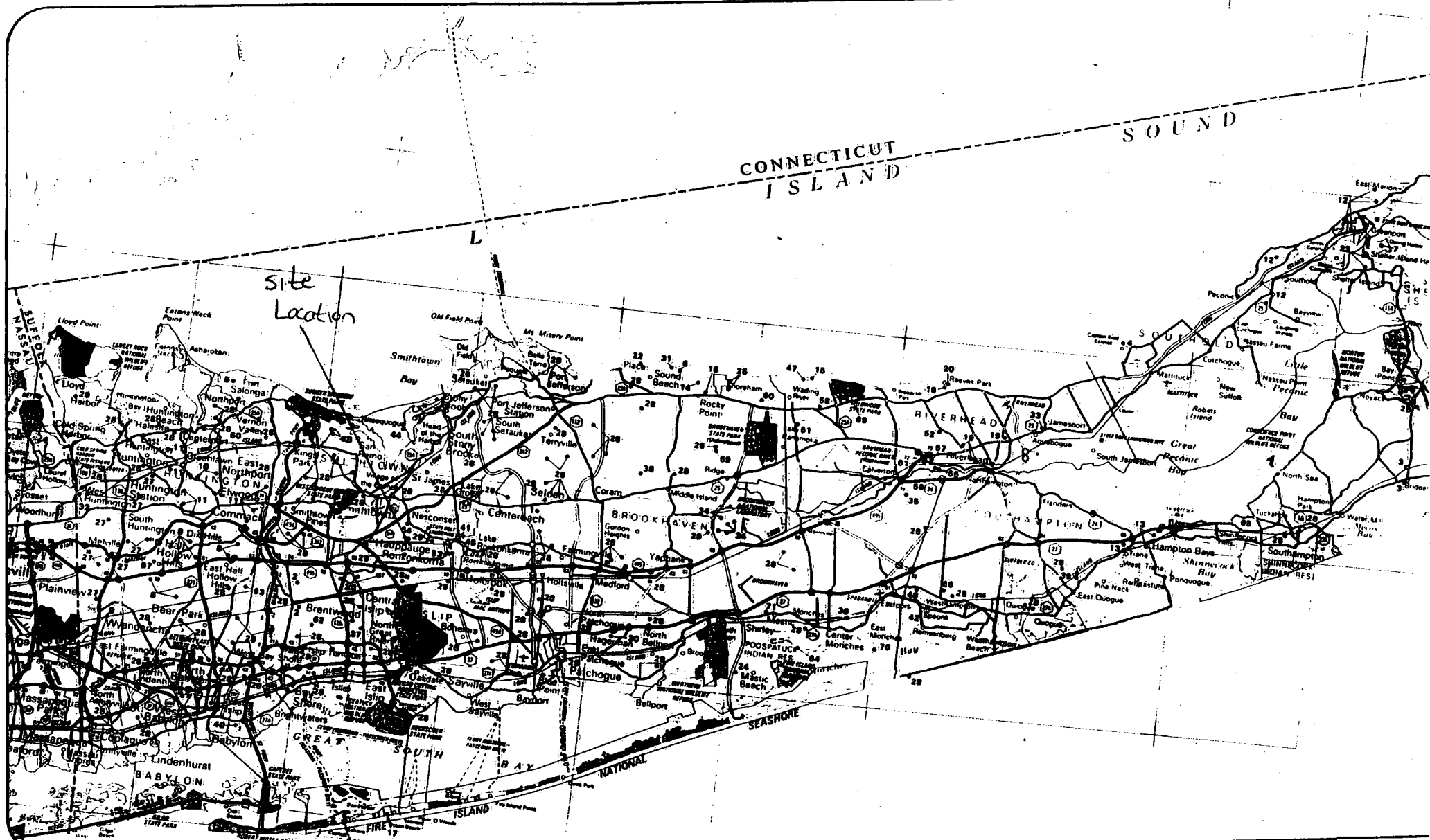
100,000 or more  
50,000 to 100,000  
12,500 to 50,000  
2,500 to 12,500  
250 to 2,500  
250 or less

### TRANSPORTATION

Highways  
Divided Highways  
Full Control of Access  
Partial or No Control of Access  
Undivided Highway  
Interchange  
Touring Route (State, U.S., Interstate)  
or State Parkway  
Touring Route Markers  
State, U.S., Interstate  
Railroads  
Operating Line  
Operator  
Owner (If Other than Operator)  
Company Having Trackage Rights  
Airports (Open to the Public, Military)  
Runway under 4000'  
Runway over 4000'  
Rest Areas  
Food, Gas, Rest Rooms  
Gas, Rest Rooms  
Rest Rooms  
Parking Only

### RECREATION FACILITIES

State or National Recreation Area  
State Campground  
State Boat Launching Site  
State Canal Park  
State Fish Hatchery  
Other State Recreation Site



SCALE 1:250,000

5 0 5 MILES

NORTH



# SUFFOLK COUNTY

## ID NO COMMUNITY WATER SYSTEM

## POPULATION

## SOURCE

### Municipal Community

1	Bevon Water Corporation.	1150	Wells
2	Brentwood Water District.	25812	Wells
3	Bridgehampton Water Company.	1916	Wells
4	Captain Kidd Water Company.	580	Wells
5	Crab Meadow Beach.	50	Wells
6	Culross Corporation (Culross Beach).	104	Wells
7	Dering Harbor Village.	130	Wells
8	Dix Hills Water District.	30000	Wells
9	East Farmingdale Water District.	7850	Wells
10	Fishers Island Water Works Corporation.	250	Barlow, Middle Farms and Treasure Ponds, Wells
11	Greenlawn Water District.	40000	Wells
12	Greenport Village.	6851	Wells
13	Hampton Bays Water District.	9500	Wells
14	Haythorne - Maple Civic Association.	50	Wells
15	Herod Point Association.	80	Wells
16	North Shores Water Company.	5000	Wells
17	Ocean Beach Village.	155	Wells
18	Reeves Beach Water Company.	650	Wells
19	Riverhead Water District.	9300	Wells
20	Roanoke Water Corporation.	201	Wells
21	Saltaire Village.	35	Wells
22	Scott's Beach Water Company.	342	Wells
23	Shelter Island Heights Association.	498	Wells
24	Shirley Water Works.	3400	Wells
25	Shorewood Water Corporation.	10000	Wells
26	Soundview Association.	236	Wells
27	South Huntington Water District.	51260	Wells
28	Suffolk County Water Authority.	900000	Wells
29	Sunhill Water Corporation.	3959	Wells
30	Swan Lake Water Corporation.	1485	Wells
31	Terrace-on-the-Sound.	400	Wells
32	Woodbury Triangle Corporation.	800	Wells

### Non-Municipal Community

33	Aquebogue Mobile Home Court.	120	Wells
34	Brookhaven National Labs.	3373	Wells
35	Calverton Hills Owners Association.	897	Wells
36	Cedar Lodge Nursing Home.	100	Wells
37	Central Islip Psychiatric Center.	4525	Wells
38	Crest Hall Health Related Facility.	120	Wells
39	East Quogue Mobile Estates.	160	Wells
40	Good Samaritan Hospital.	NA	Wells
41	Greis Mobile Park.	70	Wells
42	Hampton Gateway Apartments.	304	Wells
43	Kings Park Psychiatric Center.	3100	Wells
44	Knox School.	NA	Wells
45	Lake Hurst Lodge Adult Home.	57	Wells
46	Leier's Mobile Park.	350	Wells
47	Little Flower Children's Services.	150	Wells
48	Montauk Air Force Station.	10	Wells
49	Napeague Trailer Park.	78	Wells
50	Northport VA Hospital.	3000	Wells
51	Oak Park Trailer Park.	50	Wells
52	Oakland Ridge Mobile Park.	74	Wells
53	Park Lake Rest Home.	46	Wells
54	Peacock Alley.	35	Wells
55	Peconic River Trailer Park.	90	Wells
56	Peconic View Adult Mobile Home Park.	70	Wells
57	Pinecrest Garden Apartments.	392	Wells
58	Ramblewood Mobile Homes.	210	Wells
59	Ridge Rest Home.	58	Wells
60	Rocky Point Family Housing.	55	Wells
61	Rollin Mobile Homes.	220	Wells
62	St Joseph Convent - Long Island University.	1177	Wells
63	Sam A Lewison Start Center.	40	Wells
64	South Bay Adult Home.	40	Wells
65	Southampton College.	1000	Wells
66	Speonk Mobile Home Park.	50	Wells
67	Suffolk Developmental Center.	3500	Wells
68	Three Mile Harbor Trailer Park.	40	Wells
69	Thurm's Mobile Estates.	450	Wells
70	USCG Station - Moriches.	23	Wells
71	Wes Dubicki Apartments.	NA	Wells

REFERENCE NO. 17

GRAPHICAL EXPOSURE MODELING SYSTEM

(GEMS)

USER'S GUIDE

VOLUME 2. MODELING

Prepared for:

U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF PESTICIDES AND TOXIC SUBSTANCES  
EXPOSURE EVALUATION DIVISION

Task No. 3-2

Contract No. 68023970

Project Officer: Russell Kinerson

Task Manager: Loren Hall

Prepared by:

GENERAL SCIENCES CORPORATION  
8401 Corporate Drive  
Landover, Maryland 20785

Submitted: December 1, 1986

GEMS> I

MICROWAVE POWER DEVICES INC.

LATITUDE 40:49: 2 LONGITUDE 73:15:53 1980 POPULATION

KM	0.00-.400	.400-.810	.810-1.60	1.60-3.20	3.20-4.80	4.80-6.40	SECTOR TOTALS
S 1	0	0	6135	27787	45904	61856	141682
RING	0	0	6135	27787	45904	61856	141682
TOTALS							

GEMS> I

MICROWAVE POWER DEVICES INC.

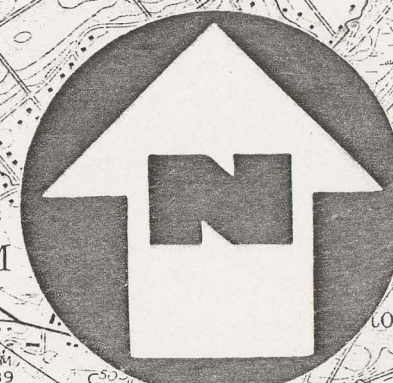
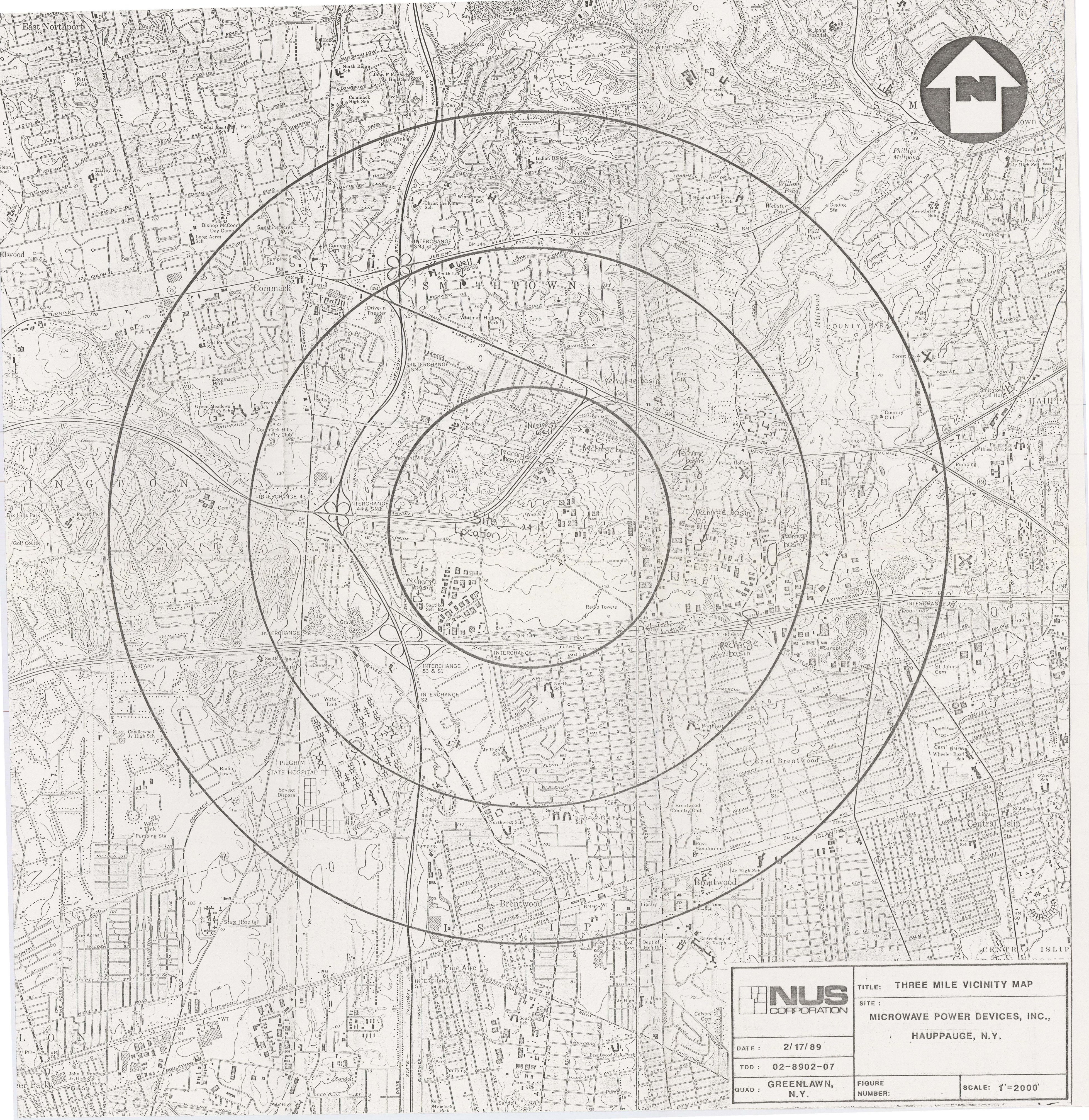
LATITUDE 40:49: 2 LONGITUDE 73:15:53 1980 HOUSING


KM	0.00-.400	.400-.810	.810-1.60	1.60-3.20	3.20-4.80	4.80-6.40	SECTOR TOTALS
S 1	0	0	1590	7365	11173	16772	36900
RING	0	0	1590	7365	11173	16772	36900
TOTALS							

Distance	Population	Housing
1/4	0	0
1/2	0	0
1	6,135	1,590
2	33,922	8,955
3	79,826	20,128
4	141,682	36,900

REFERENCE NO. 18





	TITLE: THREE MILE VICINITY MAP		
	SITE: MICROWAVE POWER DEVICES, INC., HAUPPAUGE, N.Y.		
DATE: 2/17/89			
TDD: 02-8902-07			
QUAD: GREENLAWN, N.Y.	FIGURE NUMBER:	SCALE: 1"=2000'	



REFERENCE NO. 19

PRELIMINARY ASSESSMENT  
OFF SITE RECONNAISSANCE  
INFORMATION REPORTING FORM

Date: February 22, 1989

Site Name: Microwave Power Devices Inc. TDD: 02-8902-07

Site Address: 330 Oser Avenue  
Street, Box, etc.

Hempstead  
Town

Suffolk  
County

New York  
State

NUS Personnel:	Name	Discipline
	<u>Susan Anderson</u>	<u>Environmental Scientist</u>
	<u>Joe Dvorak</u>	<u>Chemist</u>

Weather Conditions (clear, cloudy, rain, snow, etc.):

Rain

Estimated wind direction and wind speed: no wind

Estimated temperature: 39°

Signature: Susan Anderson Date: 2/22/89

Countersigned: [Signature] Date: 2-23-89



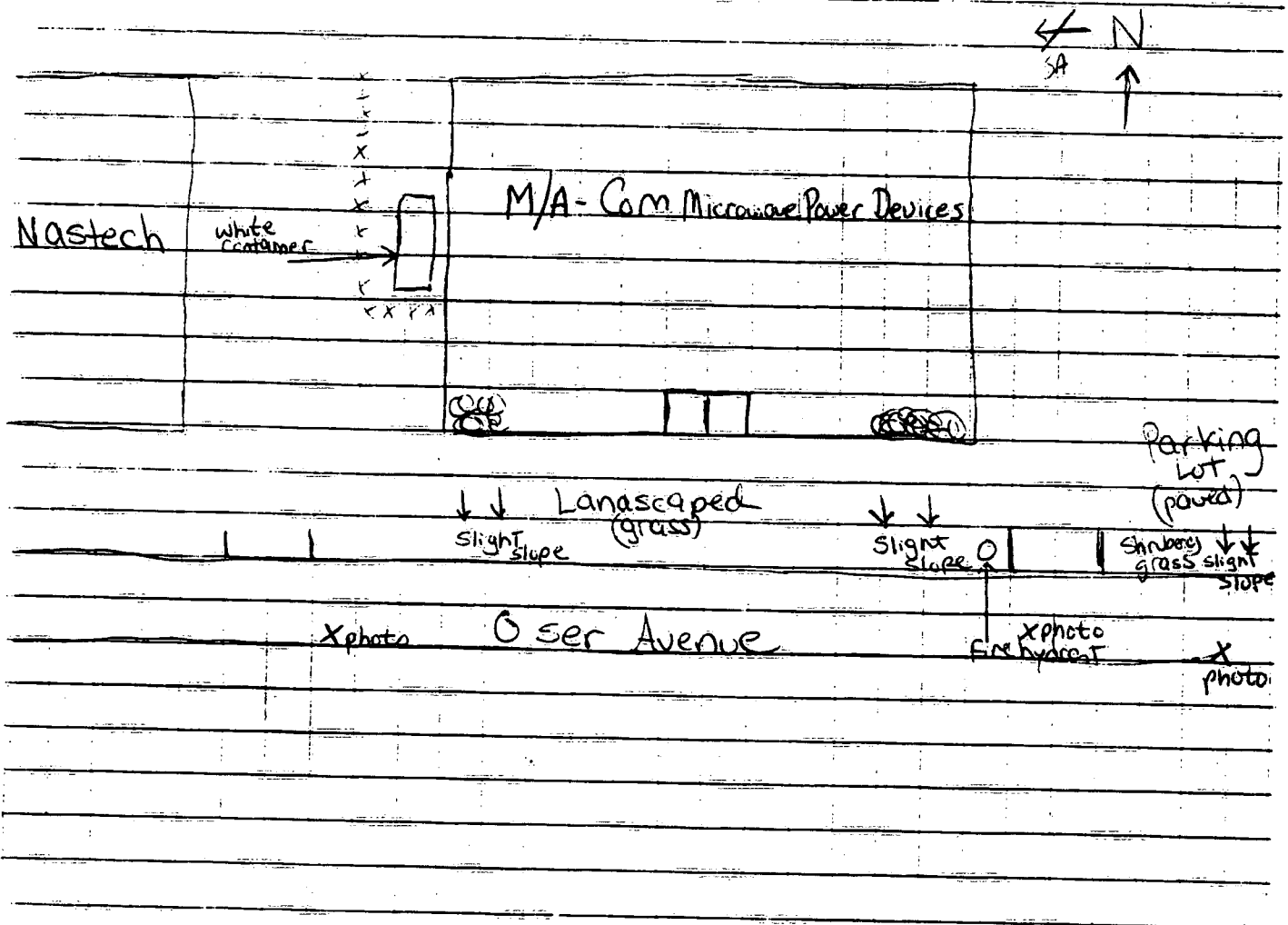
PRELIMINARY ASSESSMENT  
INFORMATION REPORTING FORM

Date: 2-22-89

Site Name: Microwave Power Devices, Inc. TDD: 02-8962-07

Site Sketch:

Indicate relative landmark locations (streets, buildings, streams, etc.).  
Provide locations from which photos are taken.



Signature: Susan Anderson

Date: 2-22-89

Countersigned: [Signature]

Date: 2-23-89

PRELIMINARY ASSESSMENT  
INFORMATION REPORTING FORM

Date: 2-22-89

Site Name: Microwave Power Devices, Inc. TDD: 09-8902-07

Notes (Periodically indicate time of entries in military time):

Arrived at site 1440 hrs. The facility is  
located in a commercial complex. Site  
appears to be active because of cars in  
parking lot. Located alongside the <sup>western</sup> ~~northern~~ side  
of the building is a large white container  
enclosed within a fence. There is a slight  
slope located on the <sup>we</sup> ~~eastern~~ <sup>southern</sup> side of  
the building. The site property is landscaped  
and orderly

Signature: [Signature]

Date: 2-22-89

Countersignature: [Signature]

Date: 2-23-89

PRELIMINARY ASSESSMENT  
INFORMATION REPORTING FORM

Date: 2-22-89

Site Name: Microwave Power Devices, Inc. TDD: 02-8902-07

Notes (Cont'd):

*[The following section contains 18 horizontal lines for notes, which are crossed out with a diagonal line from the bottom left to the top right.]*

Attach additional sheets if necessary. Provide site name, TDD number, signature, and countersignature on each.

Signature: Susan Anderson

Date: 2-22-89

Countersignature: [Signature]

Date: 2-23-89

# INFORMATION REPORTING FORM

Date: 2-22-89

Site Name: Microwave Power Devices, Inc. TDD: 02-8902-07

**Photolog:**

[illegible]

**Attach additional sheets if necessary. Provide site name, TDD number, signature, and countersignature on each.**

Signature: Sueann Anderson Date: 2-22-89  
Countersignature: [Signature] Date: 2-23-89

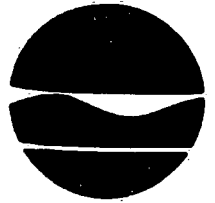
Date: 2-22-89  
Date: 2-23-89

**REFERENCE NO. 20**

New York State Department of Environmental Conservation

Building 40—SUNY, Stony Brook. New York 11794

(516) 751-7900



Thomas C. Jorling  
Commissioner

December 20, 1988

Ms. Diane Trube  
NUS Corp.  
1090 King Georges Post Road  
Suite 1103  
Edison, New Jersey 08837

Re: Farmingdale - Lindenhurst Sites

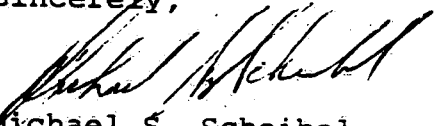
Dear Ms. Trube:

I have reviewed your request of 11/22/88, and have the following responses to your questions:

1. No "critical habitats" for federally listed endangered species have been designated for Long Island as of this date.
2. Please contact Mr. Philip Barbato, of our Water Unit, at 516-751-7900, ext. 226.
3. Please contact Mr. Charles Guthrie of our Freshwater Fisheries Unit at 516-751-7900, ext 263.

If I can be of further assistance, please do not hesitate to contact me at 751-7900, ext. 248.

Sincerely,

  
Michael S. Scheibel  
Senior Wildlife Biologist

MSS/sjmr

Ground Water Route Work Sheet						
Rating Factor	Assigned Value (Circle One)	Multi-plier	HRS	Max. Score	PRO	
<b>1</b> Observed Release	<input type="radio"/> 0 <input checked="" type="radio"/> 45	1	<input type="radio"/> 0	45	<input type="radio"/> 0	
If observed release is given a score of 45, proceed to line <b>4</b> . If observed release is given a score of 0, proceed to line <b>2</b> .						
<b>2</b> Route Characteristics						
Depth to Aquifer of Concern	0 1 <input checked="" type="radio"/> 2 3	2	4	8	4	
Net Precipitation	0 1 <input checked="" type="radio"/> 2 3	1	2	3	2	
Permeability of the Unsaturated Zone	<input type="radio"/> 0 1 2 <input checked="" type="radio"/> 3	1	0	3	3	
Physical State	0 1 2 <input checked="" type="radio"/> 3	1	3	3	3	
Total Route Characteristics Score			9	15	14	
<b>3</b> Containment	0 <input checked="" type="radio"/> 1 2 3	1	1	3	1	
<b>4</b> Waste Characteristics						
Toxicity/Persistence	0 3 6 9 12 15 <input checked="" type="radio"/> 18	1	18	18	18	
Hazardous Waste Quantity	0 <input checked="" type="radio"/> 1 <input checked="" type="radio"/> 2 3 4 5 6 7 8	1	1	8	2	
Total Waste Characteristics Score			19	26	20	
<b>5</b> Targets						
Ground Water Use	0 1 2 <input checked="" type="radio"/> 3	3	9	9	9	
Distance to Nearest Well/Population Served	0 4 8 10 12 16 18 20 24 30 32 <input checked="" type="radio"/> 35 40	1	35	40	35	
Total Targets Score			44	49	44	
<b>6</b> If line <b>1</b> is 45, multiply <b>1</b> x <b>4</b> x <b>5</b> If line <b>1</b> is 0, multiply <b>2</b> x <b>3</b> x <b>4</b> x <b>5</b>			7524	57.330	12320	
<b>7</b> Divide line <b>6</b> by 57.330 and multiply by 100			S <sub>gw</sub> = 13.12		21.49	

0 = HRS Score  
☐ = PRO Score

Surface Water Route Work Sheet											
Rating Factor	Assigned Value (Circle One)		Multi- plier	HRS	Max. Score	PRO					
<b>1</b> Observed Release	0	45	1		45						
If observed release is given a value of 45, proceed to line <b>4</b> . If observed release is given a value of 0, proceed to line <b>2</b> .											
<b>2</b> Route Characteristics											
Facility Slope and Intervening Terrain	0	1	2	3	1	3					
1-yr. 24-hr. Rainfall	0	1	2	3	1	3					
Distance to Nearest Surface Water	0	1	2	3	2	6					
Physical State	0	1	2	3	1	3					
Total Route Characteristics Score						15					
<b>3</b> Containment	0	1	2	3	1	3					
<b>4</b> Waste Characteristics											
Toxicity/Persistence	0	3	6	9	12	15	18				
Hazardous Waste Quantity	0	1	2	3	4	5	6	7	8	1	8
Total Waste Characteristics Score						26					
<b>5</b> Targets											
Surface Water Use	0	1	2	3	3	9					
Distance to a Sensitive Environment	0	1	2	3	2	6					
Population Served/Distance to Water Intake Downstream	0	4	6	8	10	1	40				
	12	16	18	20							
	24	30	32	36	40						
Total Targets Score						55					
<b>6</b> If line <b>1</b> is 45, multiply <b>1</b> x <b>4</b> x <b>5</b> If line <b>1</b> is 0, multiply <b>2</b> x <b>3</b> x <b>4</b> x <b>5</b>						64,350					
<b>7</b> Divide line <b>6</b> by 64,350 and multiply by 100	S <sub>SW</sub> =										

The surface water migration route was scored zero, as there is no overland migration route from the site to surface water.



# HRS

	s	s <sup>2</sup>
Groundwater Route Score (S <sub>gw</sub> )	13.12	172.13
Surface Water Route Score (S <sub>sw</sub> )	0.00	0.00
Air Route Score (S <sub>a</sub> )	0.00	0.00
$s_{gw}^2 + s_{sw}^2 + s_a^2$		172.13
$\sqrt{s_{gw}^2 + s_{sw}^2 + s_a^2}$		13.12
$\sqrt{s_{gw}^2 + s_{sw}^2 + s_a^2} / 1.73 = S_M =$		7.58

## WORKSHEET FOR COMPUTING S<sub>M</sub>

# PRO

	s	s <sup>2</sup>
Groundwater Route Score (S <sub>gw</sub> )	21.49	461.82
Surface Water Route Score (S <sub>sw</sub> )	0.00	0.00
Air Route Score (S <sub>a</sub> )	0.00	0.00
$s_{gw}^2 + s_{sw}^2 + s_a^2$		461.82
$\sqrt{s_{gw}^2 + s_{sw}^2 + s_a^2}$		21.49
$\sqrt{s_{gw}^2 + s_{sw}^2 + s_a^2} / 1.73 = S_M =$		12.42

## WORKSHEET FOR COMPUTING S<sub>M</sub>